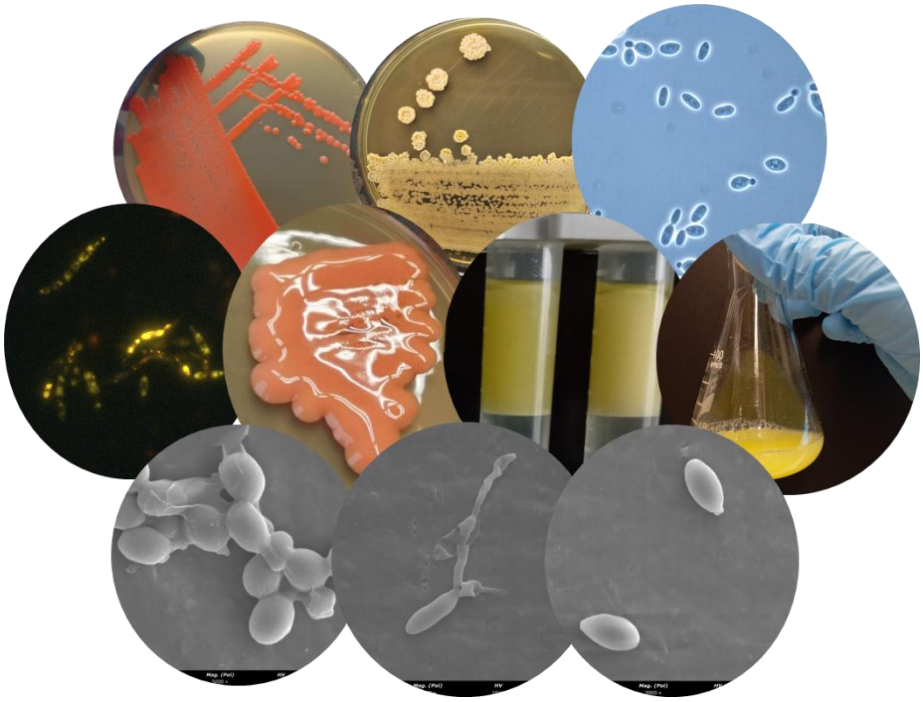
IST-Yeasts Culture Collection (IST-Yeasts CC)

of **Blue Yeasts** at iBB, IST, ULisboa

Strain Catalog

2025



iBB, IST, ULisboa, Lisboa, Portugal

IST-Yeasts Culture Collection

Strain Catalog

Version 1.0

2025

Address and contacts

IST-Yeasts Culture Collection

Avenida Rovisto Pais – IST, Biological Sciences Research Group, Torre Sul, 1049-001 Lisboa, Portugal

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Email: blueyeastscc@gmail.com

Acknowledgements

This work was financially supported by "Pacto da Bioeconomia azul" (Project No. C644915664-00000026) within the WP5 Algae Vertical and the WP9 Portuguese Blue BioBank, funded by Next Generation EU European Fund and the Portuguese Recovery and Resilience Plan (PRR), under the scope of the incentive line "Agendas for Business Innovation" through the funding scheme C5—Capitalization and Business Innovation. Funding received from Fundação para a Ciência e a Tecnologia (FCT) by iBB—Institute for Bioengineering and Biosciences (UIDB/04565/2020 and UIDP/04565/2020) and i4HB-Institute for Health and Bioeconomy (LA/P/0140/2020), is also acknowledged.

Table of Contents

General Information

The IST-Yeasts CC: Yeast Diversity and Molecular Taxonomy

The IST-Yeasts Culture Collection comprises 115 yeast strains, most of them belonging to the phylum Basidiomycota (92 %) and to the genus *Rhodotorula* (*R. mucilaginosa*, *R. diobovata*, *R. sphaerocarpa*, *R. taiwanensis*) (69 %). The other Basidiomycota species included are: *Cystobasidium minutum* and *C. slooffliae*, *Vishniacozyma carnescens, Moesziomyces aphidis, Sporobolomyces roseus and S. salmonicolor,* and *Naganishia diffluens*. The Ascomycota species present include *Meyerozyma guilliermondii*, [*Candida*] *atlantica* and [*Candida*] *vartiovaarae*.

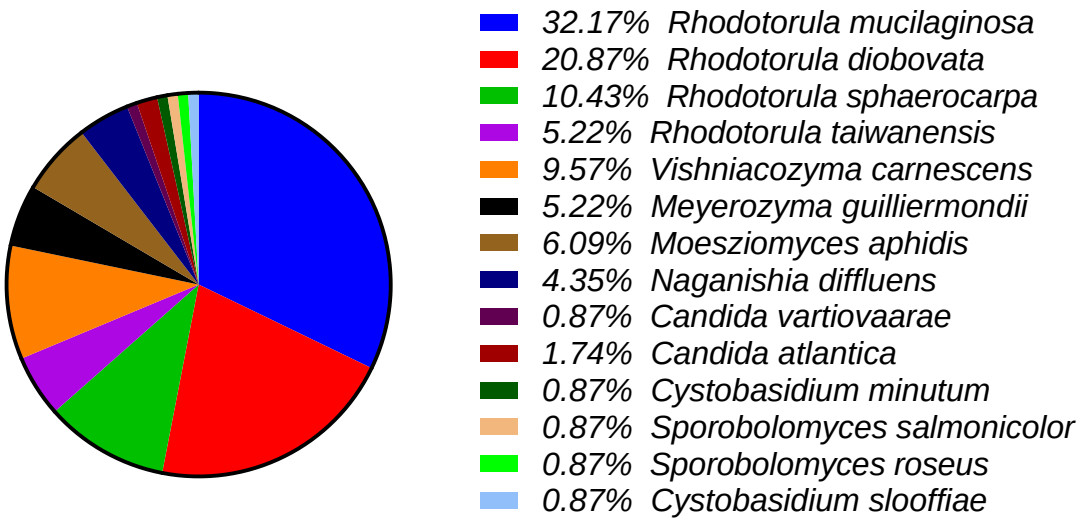


Figure 1. Yeast species distribution in the IST-Yeasts Culture Collection.

The IST-Yeasts CC is a collection of Blue Yeasts isolated from industrial cultures of microalgae and macroalgae during the scaling up process and from the disinfected water from Ria Formosa or Ria de Aveiro used to fill the bioreactors. A few isolates were obtained from cultures of academic collections of Algae. In general, these yeast isolates have the potential to produce bioproducts of biotechnological relevance. This is the case of lipids, biosurfactants, carotenoid pigments (e.g. torularhodin, torulene, carotene), exopolysaccharides, vitamins (e.g. riboflavin) and enzymes. The capacity of many isolates to co-produce some of those added value compounds from a wide range of carbon sources makes them promising microbial cell factories envisaging a sustainable circular bioeconomy. Some yeast isolates are also promising as probiotics in aquaculture.

Other services

The services offered by the IST-Yeasts Culture Collection include the distribution of cultures listed and described in the catalogue and the molecular taxonomic identification of yeasts. The Institute for Bioengineering and Biosciences (iBB; https://ibb.tecnico.ulisboa.pt/), a research centre of Instituto Superior Técnico (https://tecnico.ulisboa.pt/pt/), University of Lisbon (https://www.ulisboa.pt/), where the Culture Collection is located, can also provide consultancy services on scientific and biotechnological aspects of yeasts to the international scientific community and private institutions. The responsible academic Institution of the University of Lisbon, Instituto Superior Técnico, provides advanced training in yeast biology and biotechnology in the context of undergraduate program in Biological Engineering https://tecnico.ulisboa.pt/en/education/courses/undergraduate-programmes/biological-engineering/ and the master´s programs in Biological Engineering, https://tecnico.ulisboa.pt/en/education/courses/masters-programmes/biological-engineering/ , Biotechnology, https://tecnico.ulisboa.pt/en/education/courses/masters-programmes/biotechnology/ and Microbiology https://tecnico.ulisboa.pt/en/education/courses/masters-programmes/microbiology/ and the PhD program in Biotechnology and Biosciences https://fenix.tecnico.ulisboa.pt/cursos/dbiotec . Short-term and intensive training courses on topics related with yeast biology and biotechnology, molecular identification, could be taught in the framework of the IST-Yeasts Culture Collection.

For more information on culture distribution, please check below. For more information on other services check our website or contact us at blueyeastscc@gmail.com.

How to Order Strains

Ordering

1. Access our database (or Culture Collection Catalogue)
2. Use our advanced search to find a specific strain based on filters according to what you are looking for.
3. You can select one or more strains, download the information on the selected strains and add them to your cart.
4. Select the option “request strain” and fill the information asked:
    - Name of the person and institution to which the strain must be sent
    - Legal representative of the institution
    - Complete address of the applicant institution
    - Shipping address of the recipient institution (if different from above)

- Valid email
- VAT number

5. All the information will be compiled into an email sent to IST-Yeasts CC curators and to the applicant.
6. The IST-Yeasts CC team will contact the applicant to confirm/deny the request, sending the appropriate Material Transfer Agreement (MTA), specific to the cultures requested and providing payment instructions.
7. The legal representative of the applicant institution/company must download, complete and sign the Material Transfer Agreement (MTA) in which the reason for which the strain is requested is stated (e.g. research, teaching, etc.). By ordering from the IST-Yeasts CC the applicant accepts these terms and conditions. After signing, the MTA should be sent to the IST-Yeasts CC Curators (using contact email).

The requested cultures will be sent only after receiving the signed MTA and an order note confirming that the recipient institution will pay the stipulated value.

By ordering strains from IST-Yeasts CC, the customer agrees to not re-sell, borrow, transfer, or give our strains to third parties. Check our terms and services.

Prices

Culture supply	Price
For academic/non-profit use	100 €/strain*
For commercial use please contact us at blueyeastscc@gmail.com	

* to this value is added a VAT rate of 23% PLUS the shipping costs.

A *10% discount will be applied for 10 or more requested strains*

Culture Supply

All the cultures listed and described in the catalogue of the IST-Yeasts Culture Collection are available on request for educational and research purposes. The strains may also be available for commercial purposes, subject to the specific agreement between the IST-Yeasts CC and the applicant institution/company.

Strains are cryopreserved at -80ºC in a solution of 15% (v/v) glycerol and need to be revitalized before shipping; this procedure usually takes a few days. Moreover, prior to any shipment, the purity, vitality and morphological traits of the strain will be checked. The entire procedure will last approximately up to 3-4 weeks.

The cultures are supplied in a solid agar-medium plate. It is advisable to examine the strain vitality, purity or expected culture traits, upon arrival. Any unsatisfactory strain received will be replaced upon request if IST-Yeasts CC is notified within 4 weeks from shipment.

IST-Yeasts CC Acknowledgement

Customers agree to cite properly the IST-Yeasts CC strain number(s) in all publications or patent applications and to acknowledge the IST-Yeasts CC culture collection as the source of the strains. Customers are kindly requested to inform us of any publication including IST-Yeasts CC strains.

Handling and Safety Issues

Cultures sent by IST-Yeasts CC should only be opened and used by trained personnel, in suitable laboratory conditions.

IST-Yeasts CC is not responsible for any damage or injury that might happen after arrival.

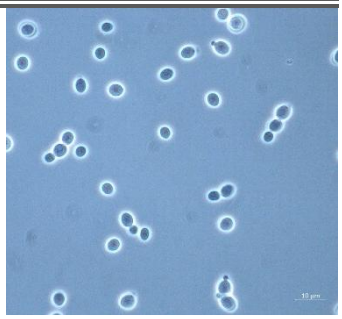
The customer should maintain, grow, use or dispose of the cultures in accordance with appropriate procedures and precautions to avoid risks to people and to the environment. It is recommended that all the environmental strains in the IST-Yeasts CC are manipulated with caution. Some species are described as opportunistic pathogens, and it is possible that some strains may produce metabolites of unknown toxicity.

In all situations, customers are advised to use a Class II biosafety cabinet for work with the cultures, and an autoclave or other suitable method for disposal and decontamination within the lab.

Catalog – Strain Sheets

IST637

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Luísa Dâmaso, Ana Amorim		
Source	Culture of *Limnospira maxima*	**Collection Date**	21/06/2023
Location	Algoteca, Faculdade Ciências ULisboa, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP116148	**NCBI ITS Accession Number**	PP115446

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

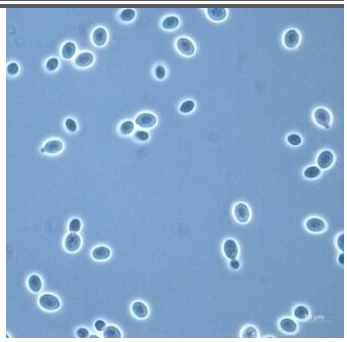
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST638

Naganishia diffluens (Zach) Liu *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus diffluens*, *Cryptococcus albidus* var. *diffluens*		
Family	Filobasidiaceae	**Class**	Tremellomycetes
Order	Filobasidiales	**Phylum**	Basidiomycota

Collector(s)	Luísa Dâmaso, Ana Amorim		
Source	Culture of *Haematococcus rubens*	**Collection Date**	21/06/2023
Location	Algoteca, Faculdade Ciências ULisboa, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP156550	**NCBI ITS Accession Number**	PP158637

Colony morphology	White to cream, mucoid
Liquid culture Characteristics	White to cream (in colorless medium)

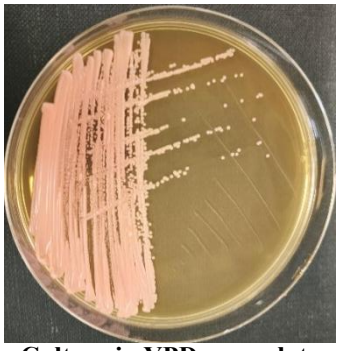
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of lipids.

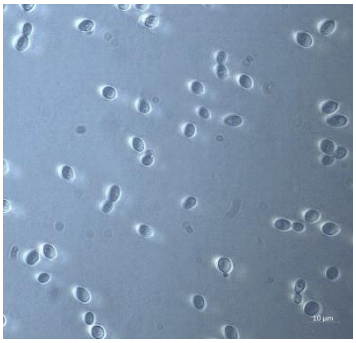
References

IST639

Cystobasidium minutum (Saito) Yurkov *et al.* 2014



Culture in YPD agar plate



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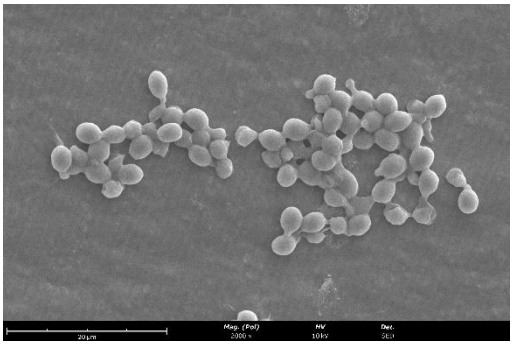


Scanning electron microphotograph 2000x

Taxon synonyms	*Rhodotorula minuta*		
Family	Cystobasidiaceae	**Class**	Cystobasidiomycetes
Order	Cystobasidiales	**Phylum**	Basidiomycota

Collector(s)	Luísa Dâmaso, Ana Amorim		
Source	Culture of *Haematococcus rubens*	**Collection Date**	21/06/2023
Location	Algoteca, Faculdade Ciências ULisboa, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP116149	**NCBI ITS Accession Number**	PP115447

Colony morphology	Light pink, moist to mucoid
Liquid culture Characteristics	Light pink (in colorless medium)

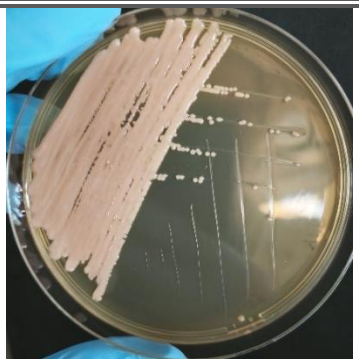
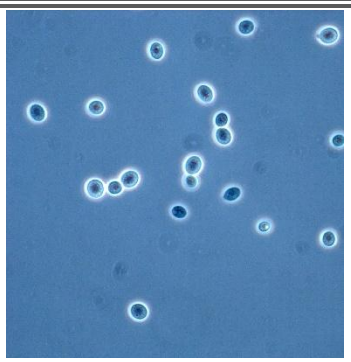
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of lipids and carotenoids.

References

IST640

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Luísa Dâmaso, Ana Amorim		
Source	Culture of *Haematococcus rubens*	**Collection Date**	21/06/2023
Location	Algoteca, Faculdade Ciências ULisboa, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number		**NCBI ITS Accession Number**	PP115448

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

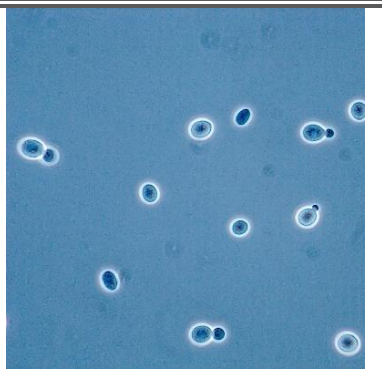
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST641

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Luísa Dâmaso, Ana Amorim		
Source	Culture of *Haematococcus sp.*	**Collection Date**	21/06/2023
Location	Algoteca, Faculdade Ciências ULisboa, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP116150	**NCBI ITS Accession Number**	PP115449

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

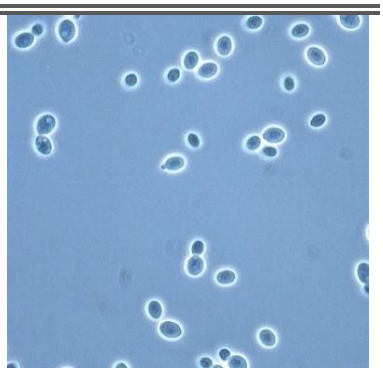
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST642

Naganishia diffluens (Zach) Liu *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus diffluens*, *Cryptococcus albidus* var. *diffluens*		
Family	Filobasidiaceae	**Class**	Tremellomycetes
Order	Filobasidiales	**Phylum**	Basidiomycota

Collector(s)	Luísa Dâmaso, Ana Amorim		
Source	Culture of *Haematococcus sp.*	**Collection Date**	21/06/2023
Location	Algoteca, Faculdade Ciências ULisboa, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP116151	**NCBI ITS Accession Number**	PP115450

Colony morphology	White to cream, mucoid
Liquid culture Characteristics	White to cream (in colorless medium)

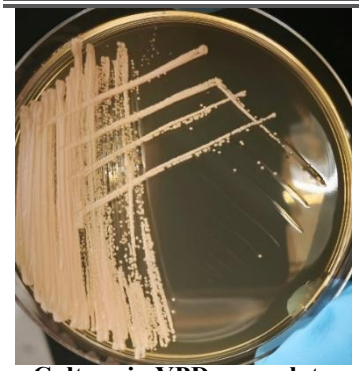
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of lipids.

References

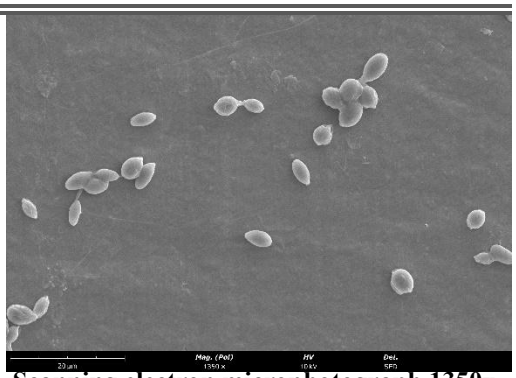
IST644

Sporobolomyces salmonicolor (B. Fisch. & Brebeck) Kluyver & C.B. Niel, 1924



Culture in YPD agar plate

Microphotograph 1000x



Scanning electron microphotograph 1350x

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Luísa Dâmaso, Ana Amorim		
Source	Culture of *Haematococcus sp.*	**Collection Date**	21/06/2023
Location	Algoteca, Faculdade Ciências ULisboa, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP116153	**NCBI ITS Accession Number**	PP115452

Colony morphology	Salmon-pink, smooth and pasty texture
Liquid culture Characteristics	Salmon-pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

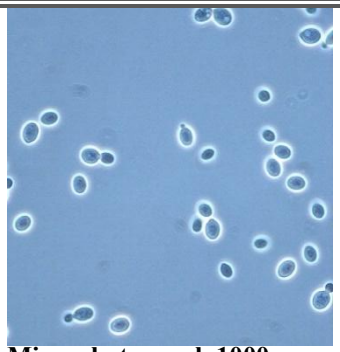
Biotechnological traits	Production of carotenoids, lipids and enzymes (lipase).

References

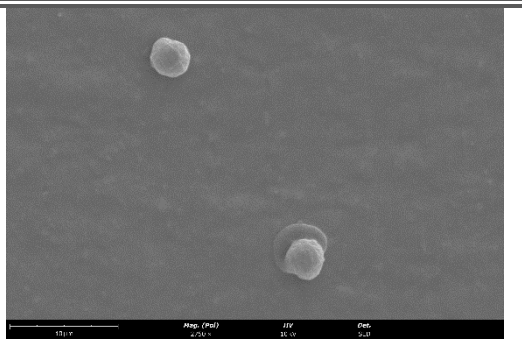
IST650

Naganishia diffluens (Zach) Liu *et al.* 2015

Culture in YPD agar plate



Microphotograph 1000x



Scanning electron microphotograph 2750x

Taxon synonyms	*Cryptococcus diffluens*, *Cryptococcus albidus* var. *diffluens*		
Family	Filobasidiaceae	**Class**	Tremellomycetes
Order	Filobasidiales	**Phylum**	Basidiomycota

Collector(s)	Madalena Mendes (Greencolab & ALGAplus), Inês Oliveira (ALGAplus)		
Source	Culture of *Porphyra dioica*: Life stage 1	**Collection Date**	09/11/2023
Location	ALGAplus, Ílhavo, Aveiro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP156551	**NCBI ITS Accession Number**	PP158638

Colony morphology	White to cream, mucoid
Liquid culture Characteristics	White to cream (in colorless medium)

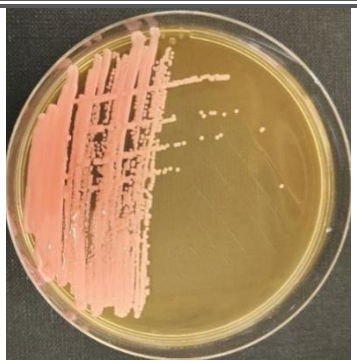
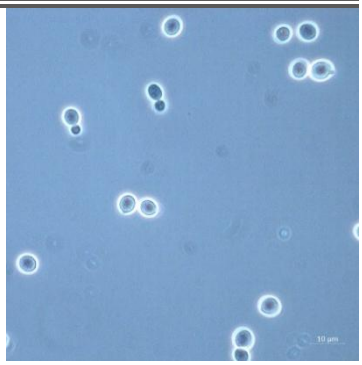
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of lipids.

References

IST654

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Madalena Mendes (Greencolab & ALGAplus), Inês Oliveira (ALGAplus)		
Source	Culture of *Porphyra dioica*: Life stage 2	**Collection Date**	09/11/2023
Location	ALGAplus, Ílhavo, Aveiro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP341335	**NCBI ITS Accession Number**	PP341883

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

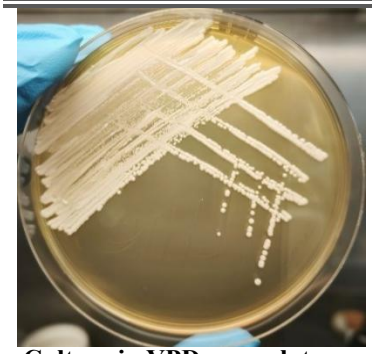
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

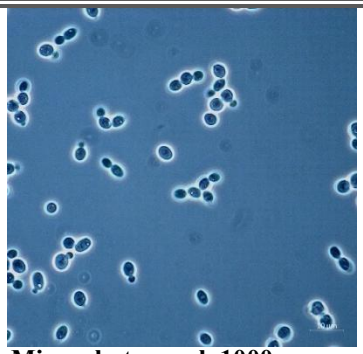
References

IST662

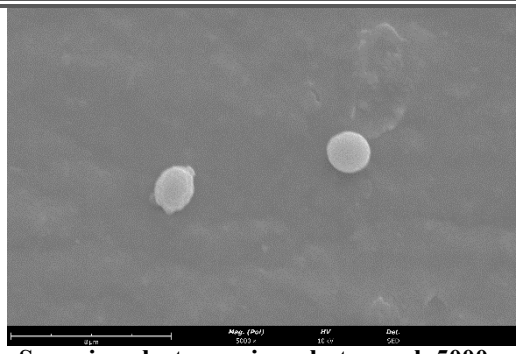
[*Candida*] *vartiovaarae* (Capr.) Uden & H.R. Buckley, 1983



Culture in YPD agar plate



Microphotograph 1000x



Scanning electron microphotograph 5000x

Taxon synonyms			
Family	Phaffomycetaceae	**Class**	Saccharomycetes
Order	Phaffomycetales	**Phylum**	Ascomycota

Collector(s)	Madalena Mendes (Greencolab & ALGAplus), Inês Oliveira (ALGAplus)		
Source	Culture of *Porphyra dioica*: Life stage 4	**Collection Date**	09/11/2023
Location	ALGAplus, Ílhavo, Aveiro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP156560	**NCBI ITS Accession Number**	PP158647

Colony morphology	Cream, smooth, slightly shiny
Liquid culture Characteristics	Cream (in colorless medium)

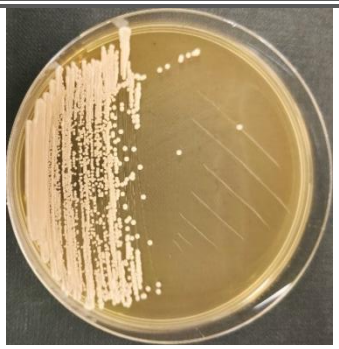
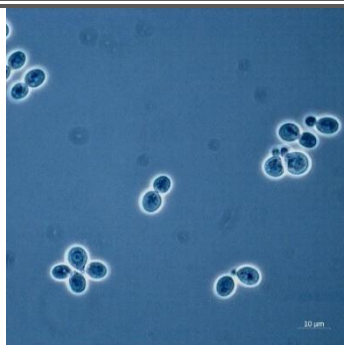
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits

References

IST671

Naganishia diffluens (Zach) Liu *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus diffluens*, *Cryptococcus albidus* var. *diffluens*		
Family	Filobasidiaceae	**Class**	Tremellomycetes
Order	Filobasidiales	**Phylum**	Basidiomycota

Collector(s)	Madalena Mendes (Greencolab & ALGAplus), Inês Oliveira (ALGAplus)		
Source	Culture of *Porphyra dioica*: Life stage 5	**Collection Date**	09/11/2023
Location	ALGAplus, Ílhavo, Aveiro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP156565	**NCBI ITS Accession Number**	PP158652

Colony morphology	White to cream, mucoid
Liquid culture Characteristics	White to cream (in colorless medium)

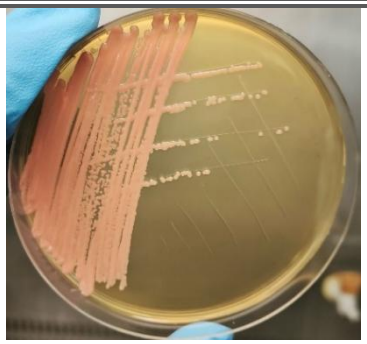
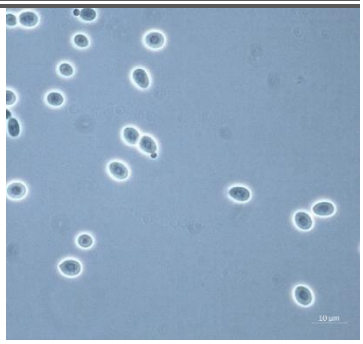
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of lipids.

References

IST675

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea*, flat panel	**Collection Date**	21/11/2023
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP341339	**NCBI ITS Accession Number**	PP341887

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

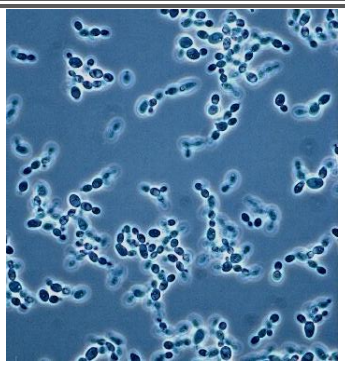
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

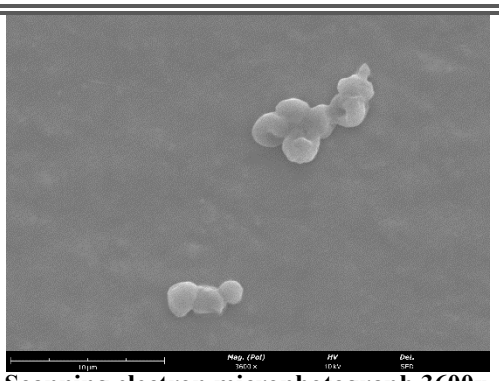
IST681

[*Candida*] *atlantica* (Siepmann) S. A. Meyer & Simione, 1998

Culture in YPD agar plate



Microphotograph 1000x



Scanning electron microphotograph 3600x

Taxon synonyms			
Family	Debaryomycetaceae	**Class**	Pichiomycetes
Order	Serinales	**Phylum**	Ascomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea*, flat panel	**Collection Date**	21/11/2023
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP341345	**NCBI ITS Accession Number**	PP341893

Colony morphology	Cream, Dull, Rough texture
Liquid culture Characteristics	Cream (in colorless medium)

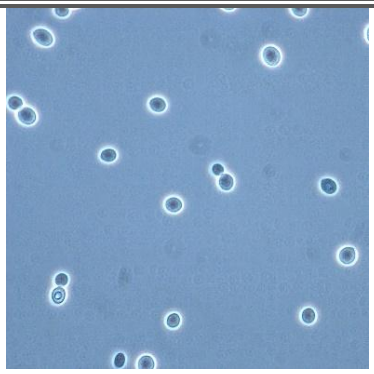
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits	Psychrotrophic (10 ºC to 25 ºC).

References

IST685

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea*, flat panel	**Collection Date**	21/11/2023
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP341349	**NCBI ITS Accession Number**	PP341897

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

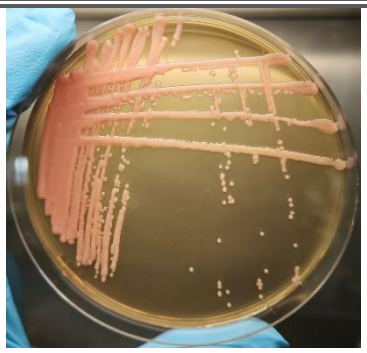
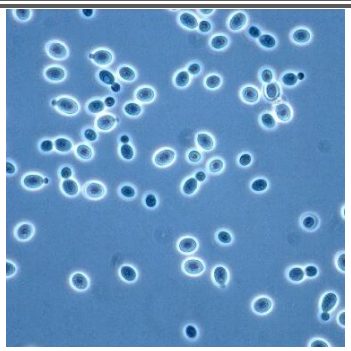
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST709

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	27/11/2023
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP341369	**NCBI ITS Accession Number**	PP341916

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

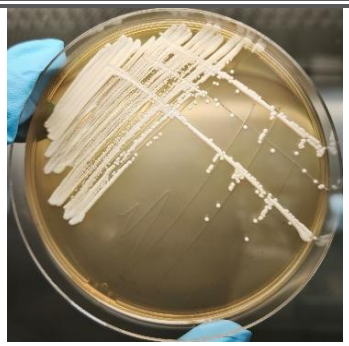
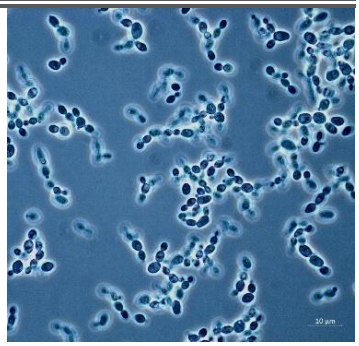
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST723

[*Candida*] *atlantica* (Siepmann) S. A. Meyer & Simione, 1998

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Debaryomycetaceae	**Class**	Pichiomycetes
Order	Serinales	**Phylum**	Ascomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	27/11/2023
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP341380	**NCBI ITS Accession Number**	PP341927

Colony morphology	Cream, Dull, Rough texture
Liquid culture Characteristics	Cream (in colorless medium)

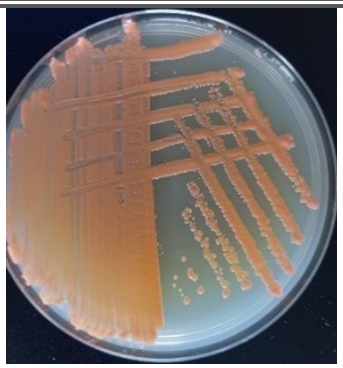
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits	Psychrotrophic (10 ºC to 25 ºC).

References

IST724

Sporobolomyces roseus Kluyver & C.B. Niel, 1924

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Madalena Mendes (Greencolab & ALGAplus), Inês Oliveira (ALGAplus)		
Source	Culture of *Porphyra dioica*: Life stage 5	**Collection Date**	09/11/2023
Location	ALGAplus, Ílhavo, Aveiro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP156566	**NCBI ITS Accession Number**	PP158653

Colony morphology	Reddish-pink, slightly shiny and smooth
Liquid culture Characteristics	Reddish-pink (in colorless medium)

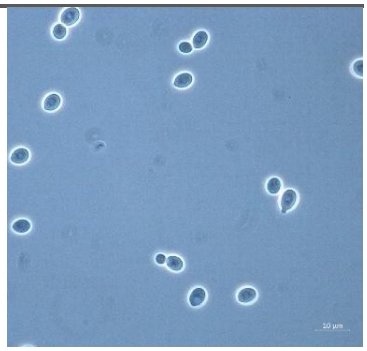
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	10 ºC		

Biotechnological traits	Production of carotenoids, lipids and enzymes. Psychrotrophic (5 ºC to 25 ºC).

References

IST725

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	03/01/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP470779	**NCBI ITS Accession Number**	PP470798

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

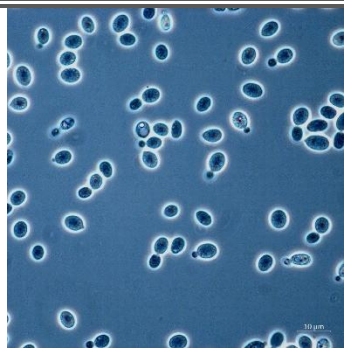
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST727

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	03/01/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP470781	**NCBI ITS Accession Number**	PP470800

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

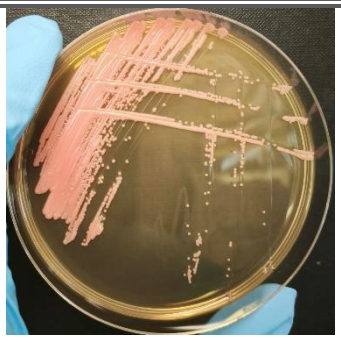
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

IST729

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	22/01/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP470783	**NCBI ITS Accession Number**	PP470802

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

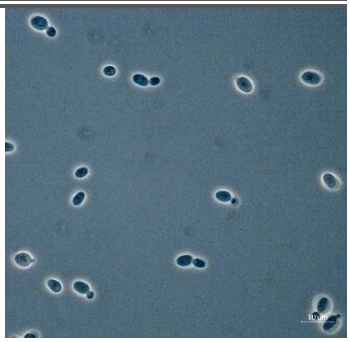
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

IST730

Rhodotorula taiwanensis Lee *et al.,* 2021

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	22/01/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP470784	**NCBI ITS Accession Number**	PP470803

Colony morphology	Salmon-pink to orange, slightly shiny and smooth
Liquid culture Characteristics	Salmon-pink to orange (in colorless medium)

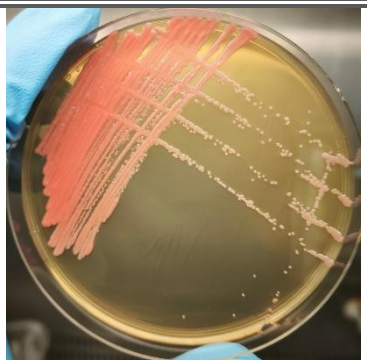
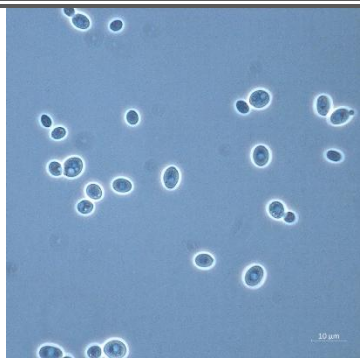
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants, exopolysaccharides. Tolerant to radiation and heavy metals.

References

IST733

Rhodotorula taiwanensis Lee *et al.,* 2021

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, column	**Collection Date**	23/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380541	**NCBI ITS Accession Number**	PQ396197

Colony morphology	Salmon-pink to orange, slightly shiny and smooth
Liquid culture Characteristics	Salmon-pink to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

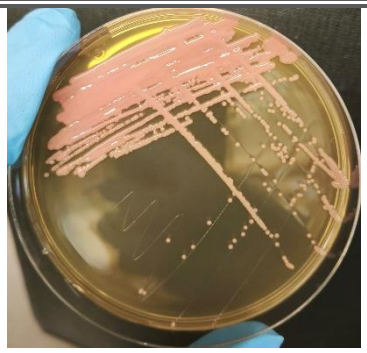
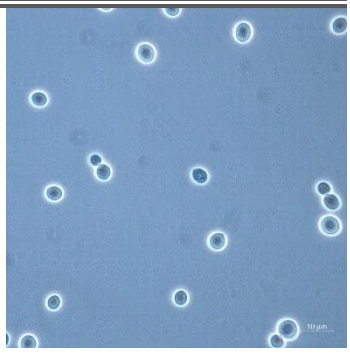
Biotechnological traits	Production of carotenoids, lipids, biosurfactants, exopolysaccharides. Tolerant to radiation and heavy metals.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST735

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, column	**Collection Date**	23/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380543	**NCBI ITS Accession Number**	PQ396199

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

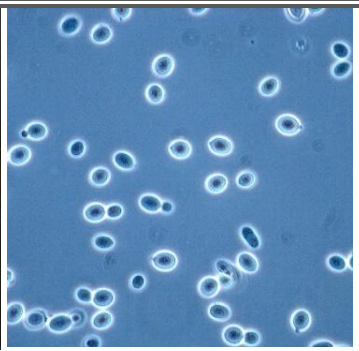
References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

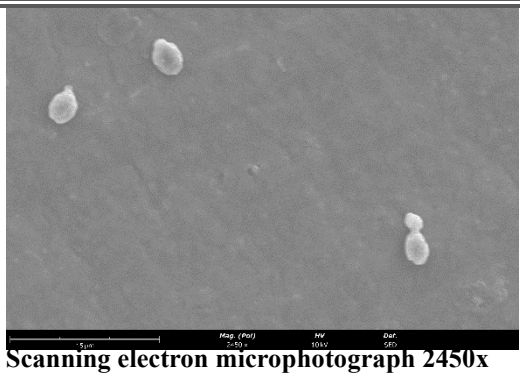
IST736

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate



Microphotograph 1000x



Scanning electron microphotograph 2450x

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, column	**Collection Date**	23/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ682403	**NCBI ITS Accession Number**	-------

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

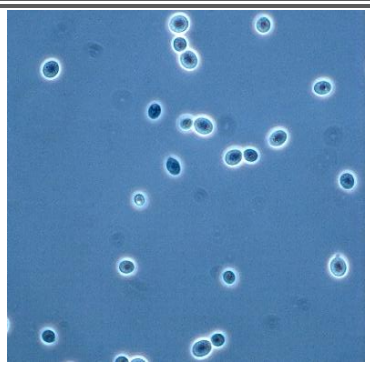
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST737

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, column	**Collection Date**	23/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380544	**NCBI ITS Accession Number**	PQ396200

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

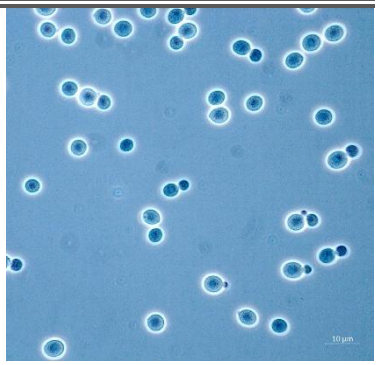
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST739

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flask	**Collection Date**	23/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380546	**NCBI ITS Accession Number**	PQ396202

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

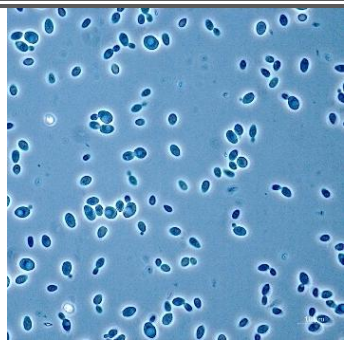
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST742

Meyerozyma guilliermondii (Wickerham) Kurtzman & M. Suzuki, 2010

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Candida guilliermondii, Endomyces guilliermondii, Pichia guilliermondii, Yamadazyma guilliermondii*		
Family	Debaryomycetaceae	**Class**	Pichiomycetes
Order	Serinales	**Phylum**	Ascomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, flat panel	**Collection Date**	22/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340620	**NCBI ITS Accession Number**	PQ340650

Colony morphology	Cream, shiny and smooth
Liquid culture Characteristics	White or yellow (if riboflavin production is possible)

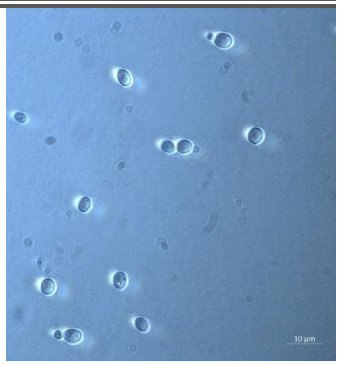
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of riboflavin and lipids.

References

IST744

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, flat panel	**Collection Date**	22/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340622	**NCBI ITS Accession Number**	PQ340652

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

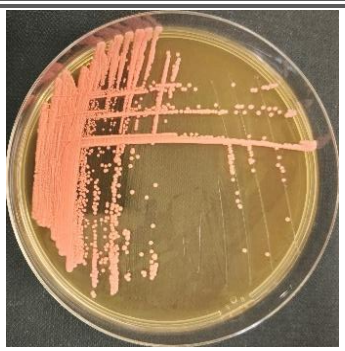
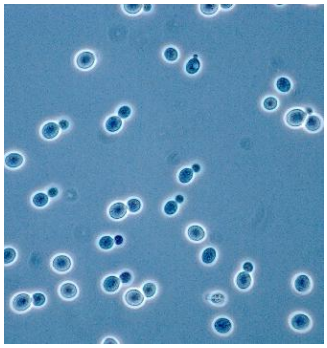
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST753

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, flask	**Collection Date**	15/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340631	**NCBI ITS Accession Number**	PQ340661

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

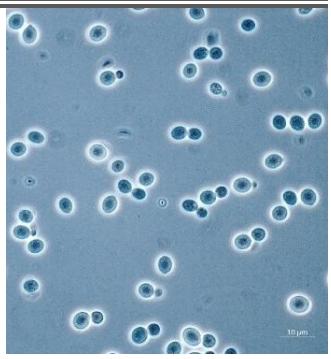
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST754

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, column	**Collection Date**	22/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340632	**NCBI ITS Accession Number**	PQ340662

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

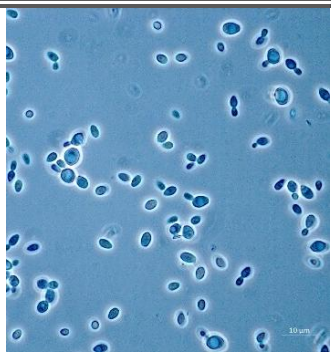
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST757

Meyerozyma guilliermondii (Wickerham) Kurtzman & M. Suzuki, 2010

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Candida guilliermondii, Endomyces guilliermondii, Pichia guilliermondii, Yamadazyma guilliermondii*		
Family	Debaryomycetaceae	**Class**	Pichiomycetes
Order	Serinales	**Phylum**	Ascomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, column	**Collection Date**	15/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340635	**NCBI ITS Accession Number**	PQ340665

Colony morphology	Cream, shiny and smooth
Liquid culture Characteristics	White or yellow (if riboflavin production is possible)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

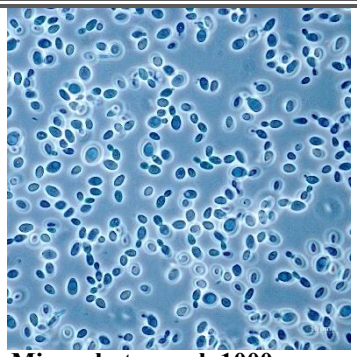
Biotechnological traits	Production of riboflavin and lipids.

References

IST760

Meyerozyma guilliermondii (Wickerham) Kurtzman & M. Suzuki, 2010

Culture in YPD agar plate



Microphotograph 1000x

Scanning electron microphotograph 5400x

Taxon synonyms	*Candida guilliermondii, Endomyces guilliermondii, Pichia guilliermondii, Yamadazyma guilliermondii*		
Family	Debaryomycetaceae	**Class**	Pichiomycetes
Order	Serinales	**Phylum**	Ascomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, flask	**Collection Date**	15/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340638	**NCBI ITS Accession Number**	PQ340668

Colony morphology	Cream, shiny and smooth
Liquid culture Characteristics	White or yellow (if riboflavin production is possible)

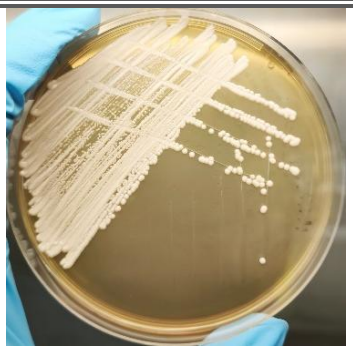
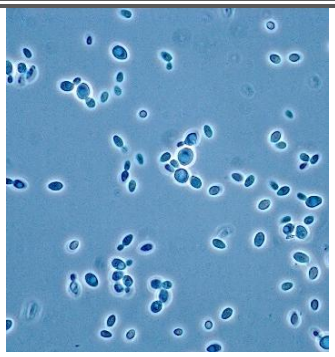
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of riboflavin and lipids.

References

IST766

Meyerozyma guilliermondii (Wickerham) Kurtzman & M. Suzuki, 2010

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Candida guilliermondii, Endomyces guilliermondii, Pichia guilliermondii, Yamadazyma guilliermondii*		
Family	Debaryomycetaceae	**Class**	Pichiomycetes
Order	Serinales	**Phylum**	Ascomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, column	**Collection Date**	22/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340644	**NCBI ITS Accession Number**	PQ340674

Colony morphology	Cream, shiny and smooth
Liquid culture Characteristics	White or yellow (if riboflavin production is possible)

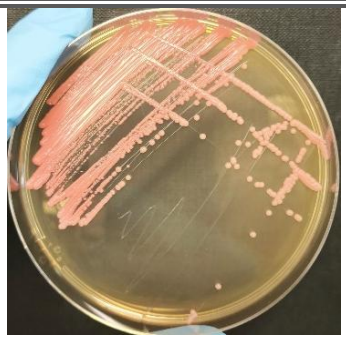
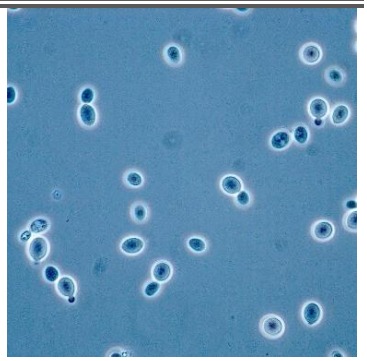
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of riboflavin and lipids.

References

IST778

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, column	**Collection Date**	22/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380553	**NCBI ITS Accession Number**	PQ396209

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

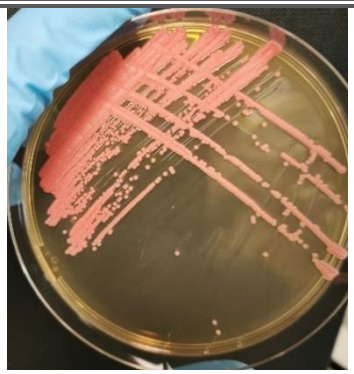
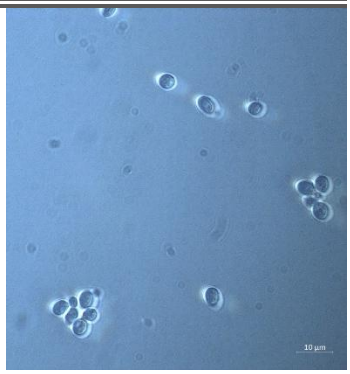
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

IST779

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, column	**Collection Date**	15/02/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380554	**NCBI ITS Accession Number**	PQ396210

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

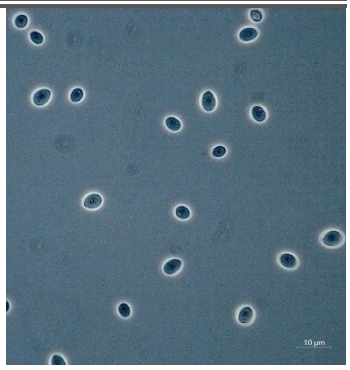
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST783

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	14/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340695	**NCBI ITS Accession Number**	PQ340716

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

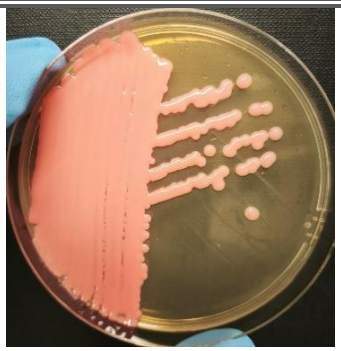
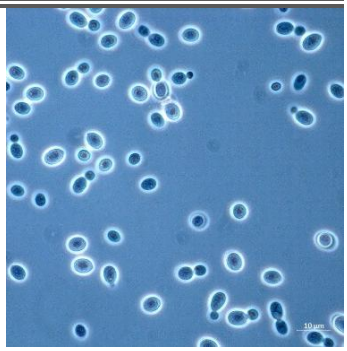
Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST784

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	14/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340696	**NCBI ITS Accession Number**	PQ340717

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

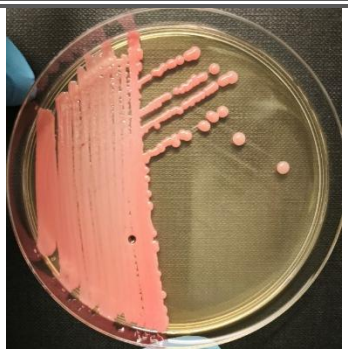
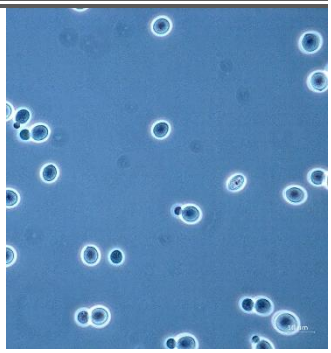
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST785

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, column	**Collection Date**	06/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340697	**NCBI ITS Accession Number**	PQ340718

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

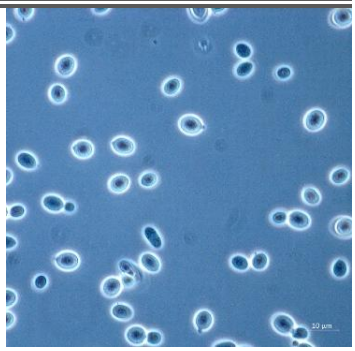
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST786

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, flat panel	**Collection Date**	11/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340698	**NCBI ITS Accession Number**	PQ340719

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

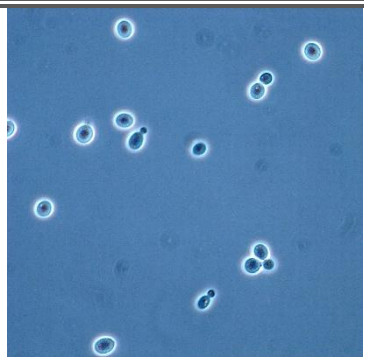
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

IST789

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	06/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340701	**NCBI ITS Accession Number**	PQ340722

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

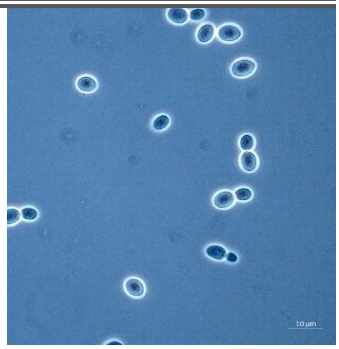
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST790

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Nannochloropsis oceanica*, flat panel	**Collection Date**	07/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340702	**NCBI ITS Accession Number**	PQ340723

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

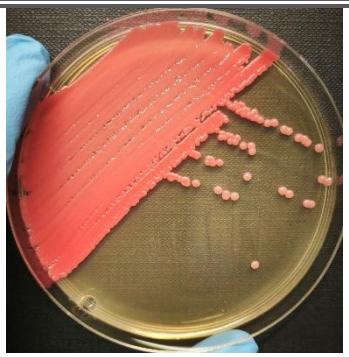
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

IST794

Rhodotorula taiwanensis Lee *et al.,* 2021

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	06/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340705	**NCBI ITS Accession Number**	PQ340726

Colony morphology	Salmon-pink to orange, slightly shiny and smooth
Liquid culture Characteristics	Salmon-pink to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

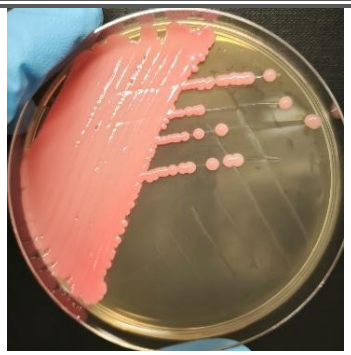
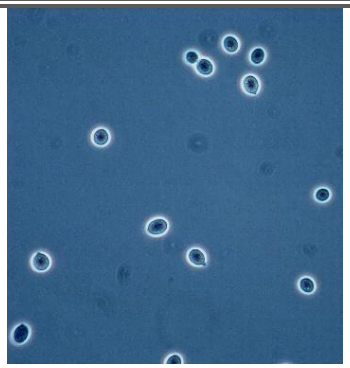
Biotechnological traits	Production of carotenoids, lipids, biosurfactants, exopolysaccharides. Tolerant to radiation and heavy metals.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST795

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	06/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ340706	**NCBI ITS Accession Number**	PQ340727

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

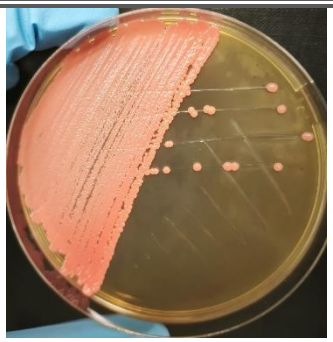
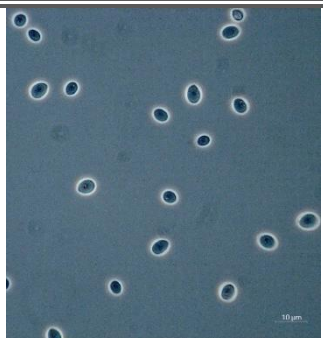
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST805

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	02/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP944307	**NCBI ITS Accession Number**	PP952017

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

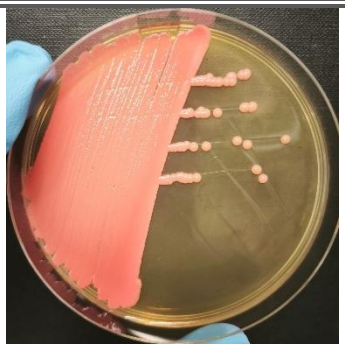
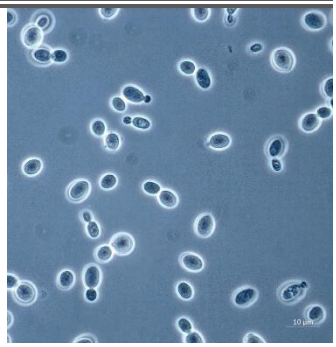
Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST806

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	02/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP944308	**NCBI ITS Accession Number**	PP952018

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

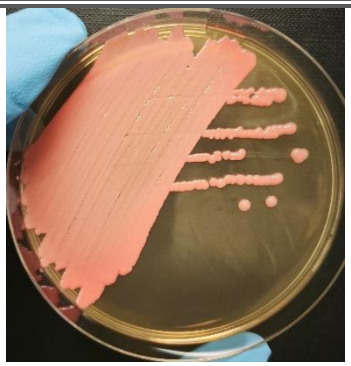
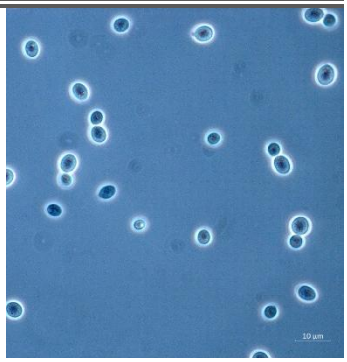
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST808

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	02/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP944310	**NCBI ITS Accession Number**	PP952020

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

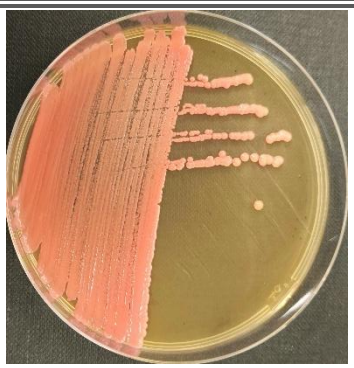
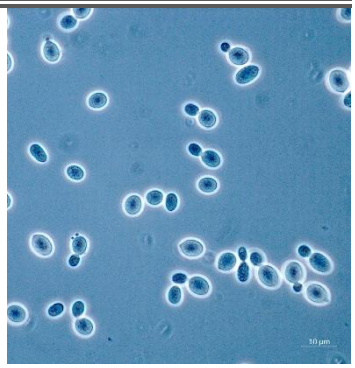
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST810

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	02/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP944302	**NCBI ITS Accession Number**	PP952012

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

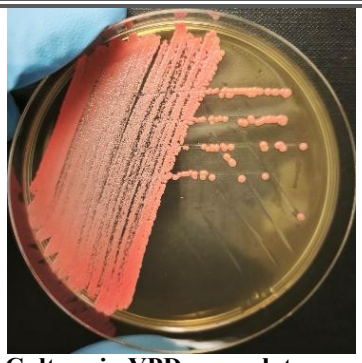
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

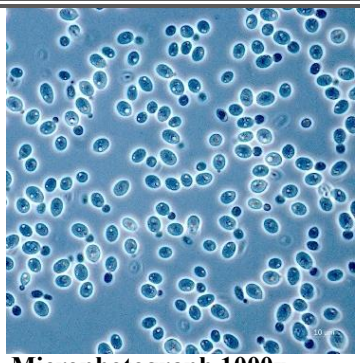
Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST816

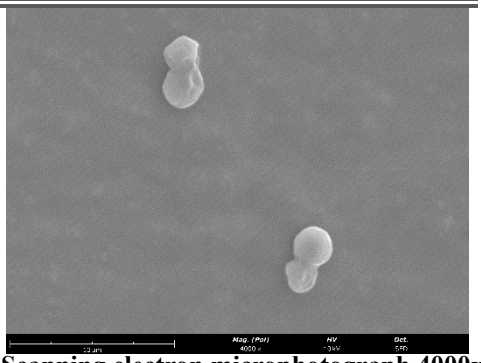
Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015



Culture in YPD agar plate



Microphotograph 1000x



Scanning electron microphotograph 4000x

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	14/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ341202	**NCBI ITS Accession Number**	PQ351452

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

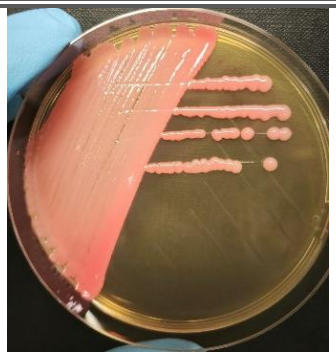
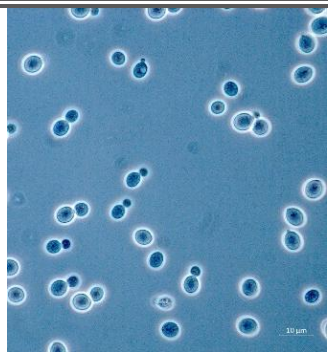
Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST818

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	14/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ341204	**NCBI ITS Accession Number**	PQ351454

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

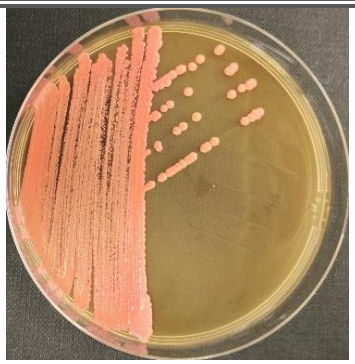
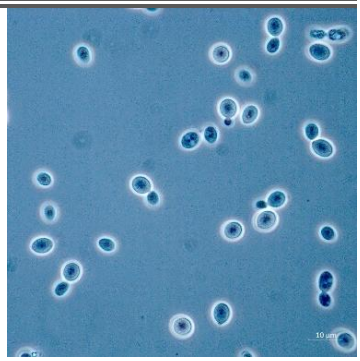
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST823

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	25/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ341209	**NCBI ITS Accession Number**	PQ351459

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

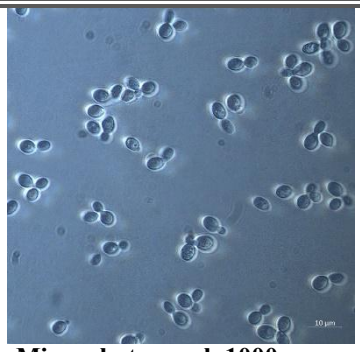
References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

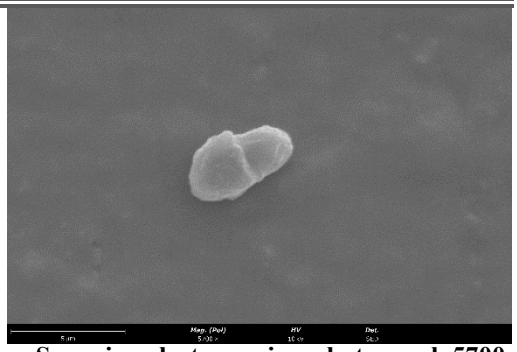
IST827

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate



Microphotograph 1000x



Scanning electron microphotograph 5700x

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	02/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PP944311	**NCBI ITS Accession Number**	PP952021

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

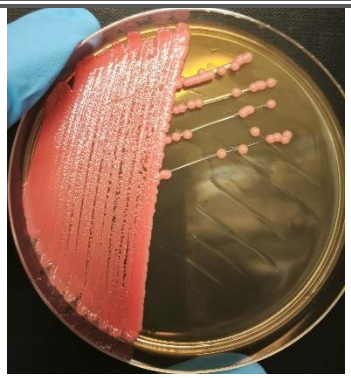
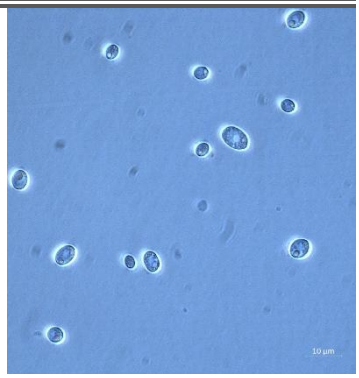
Biotechnological traits

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST829

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	25/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ341213	**NCBI ITS Accession Number**	PQ351463

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

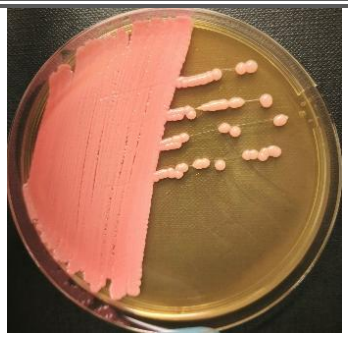
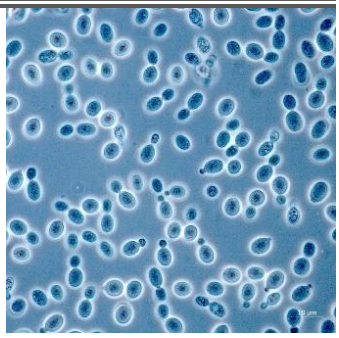
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST838

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	25/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ341222	**NCBI ITS Accession Number**	PQ351472

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

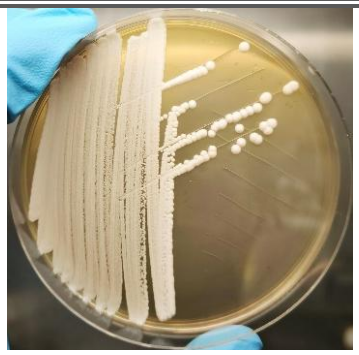
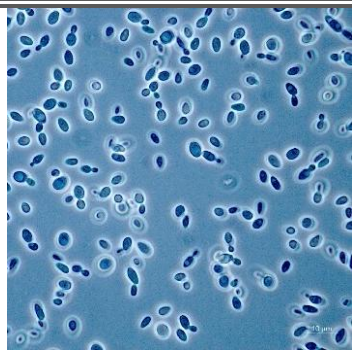
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST848

Meyerozyma guilliermondii (Wickerham) Kurtzman & M. Suzuki, 2010

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Candida guilliermondii, Endomyces guilliermondii, Pichia guilliermondii, Yamadazyma guilliermondii*		
Family	Debaryomycetaceae	**Class**	Pichiomycetes
Order	Serinales	**Phylum**	Ascomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	25/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ341232	**NCBI ITS Accession Number**	PQ351482

Colony morphology	Cream, shiny and smooth
Liquid culture Characteristics	White or yellow (if riboflavin production is possible)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

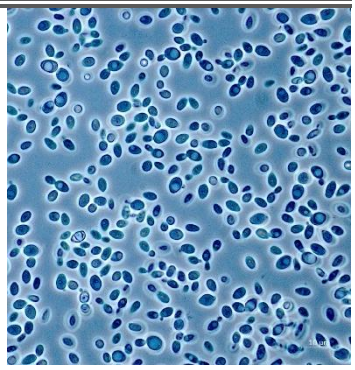
Biotechnological traits	Production of riboflavin and lipids.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST849

Meyerozyma guilliermondii (Wickerham) Kurtzman & M. Suzuki, 2010

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Candida guilliermondii, Endomyces guilliermondii, Pichia guilliermondii, Yamadazyma guilliermondii*		
Family	Debaryomycetaceae	**Class**	Pichiomycetes
Order	Serinales	**Phylum**	Ascomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	25/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ341233	**NCBI ITS Accession Number**	PQ351483

Colony morphology	Cream, shiny and smooth
Liquid culture Characteristics	White or yellow (if riboflavin production is possible)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

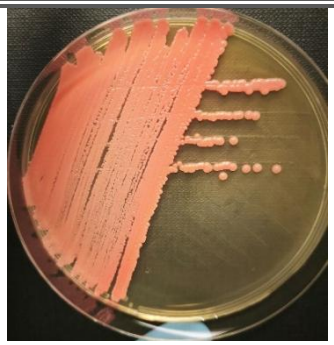
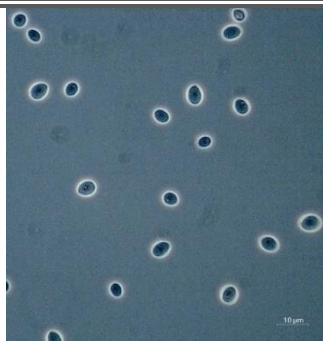
Biotechnological traits	Production of riboflavin and lipids.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST851

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	08/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ341235	**NCBI ITS Accession Number**	PQ351485

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

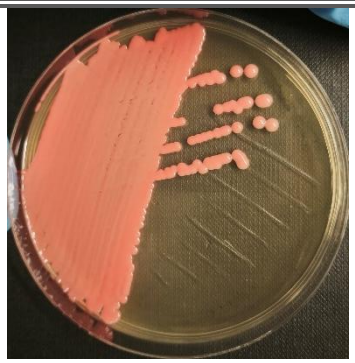
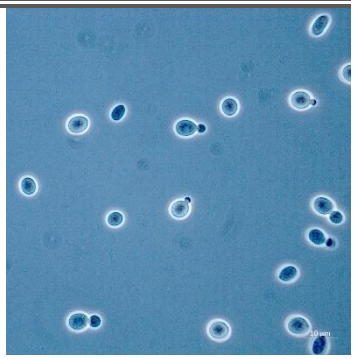
Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST852

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	25/03/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ341236	**NCBI ITS Accession Number**	PQ351486

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

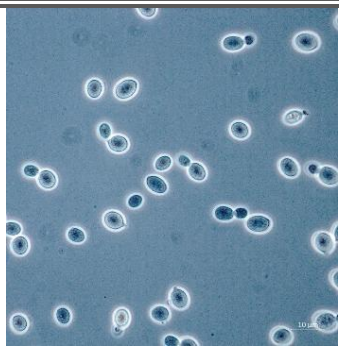
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST865

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	03/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380556	**NCBI ITS Accession Number**	PQ396212

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

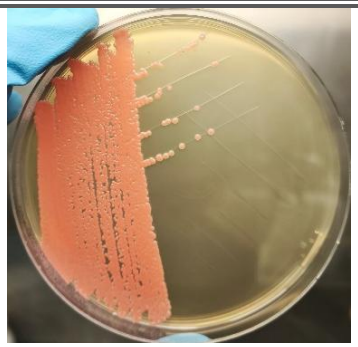
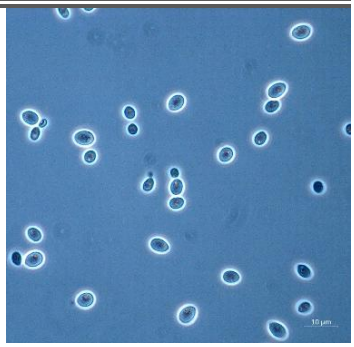
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST870

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	03/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380559	**NCBI ITS Accession Number**	PQ396215

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

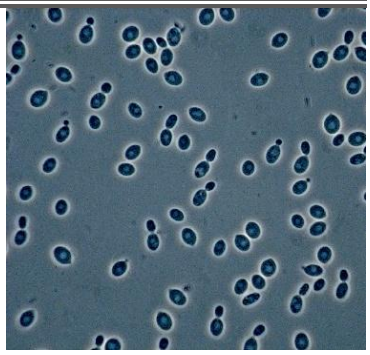
Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST878

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	11/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380567	**NCBI ITS Accession Number**	PQ396223

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

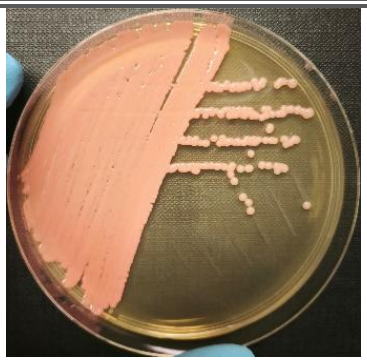
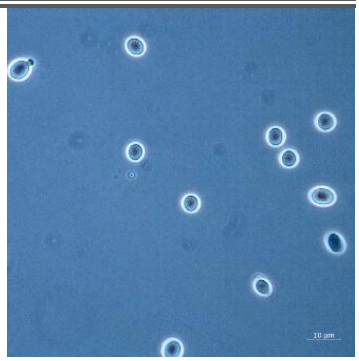
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST879

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	11/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380568	**NCBI ITS Accession Number**	PQ396224

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

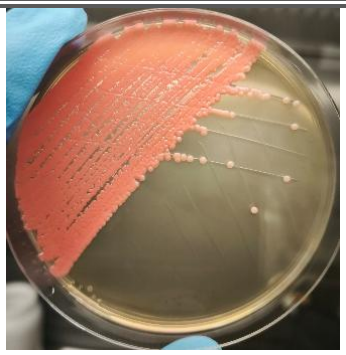
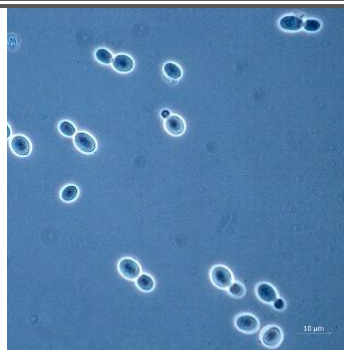
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST885

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	26/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380573	**NCBI ITS Accession Number**	PQ396229

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

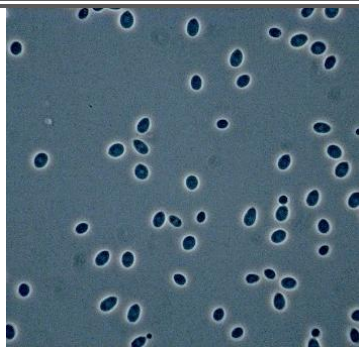
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST889

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	08/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380577	**NCBI ITS Accession Number**	PQ396233

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

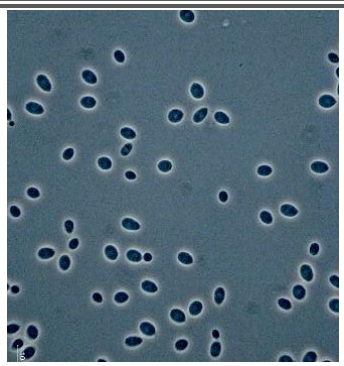
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST890

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	11/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380578	**NCBI ITS Accession Number**	PQ396234

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

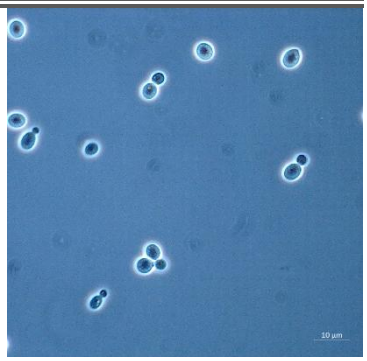
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST891

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	11/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380579	**NCBI ITS Accession Number**	PQ396235

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

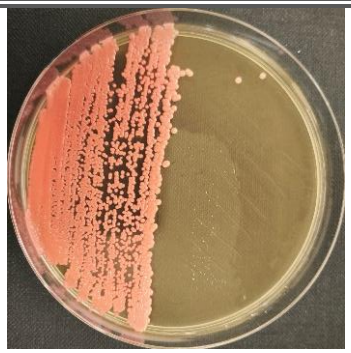
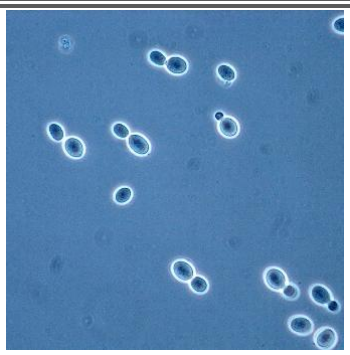
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST903

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	16/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344279	**NCBI ITS Accession Number**	PQ351557

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

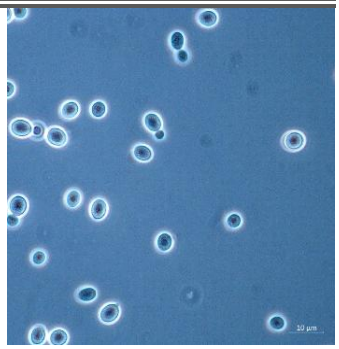
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST907

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	16/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344283	**NCBI ITS Accession Number**	PQ351561

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

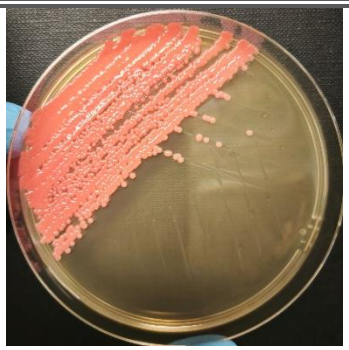
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST909

Rhodotorula taiwanensis Lee *et al.,* 2021

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	26/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344285	**NCBI ITS Accession Number**	PQ351563

Colony morphology	Salmon-pink to orange, slightly shiny and smooth
Liquid culture Characteristics	Salmon-pink to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

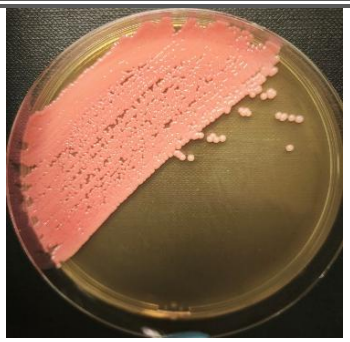
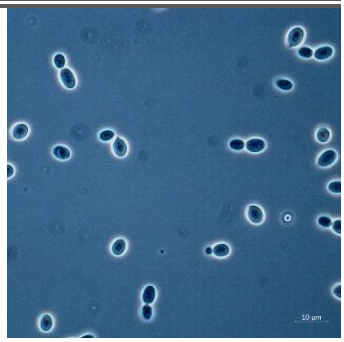
Biotechnological traits	Production of carotenoids, lipids, biosurfactants, exopolysaccharides. Tolerant to radiation and heavy metals.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST910

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	26/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344286	**NCBI ITS Accession Number**	PQ351564

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

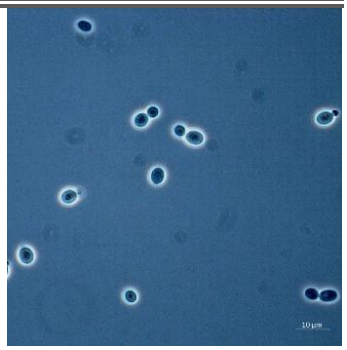
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST912

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	26/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344288	**NCBI ITS Accession Number**	PQ351566

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

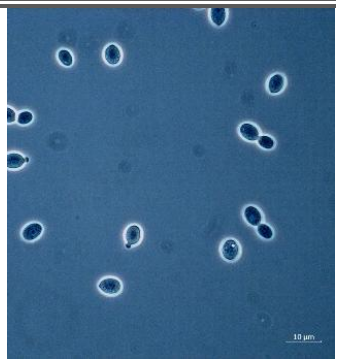
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST913

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	26/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344289	**NCBI ITS Accession Number**	PQ351567

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

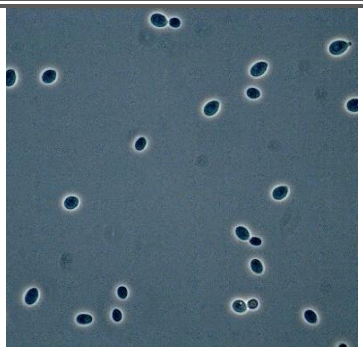
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST915

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	26/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344291	**NCBI ITS Accession Number**	PQ351569

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

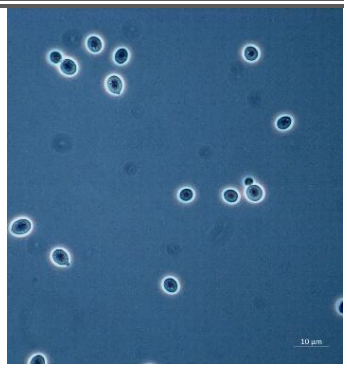
Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST918

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	30/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344294	**NCBI ITS Accession Number**	PQ351572

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

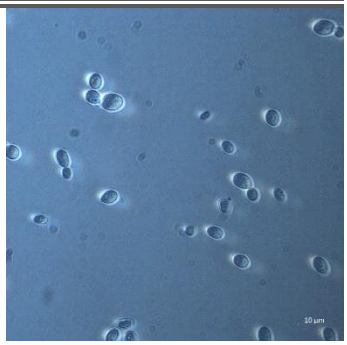
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST919

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	29/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344295	**NCBI ITS Accession Number**	PQ351573

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST922

Moesziomyces aphidis (Henninger & Windisch) Wang *et al.,* 2016

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Pseudozyma aphidis*		
Family	Ustilaginaceae	**Class**	Ustilaginomycetes
Order	Ustilaginales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	26/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344298	**NCBI ITS Accession Number**	PQ351576

Colony morphology	Cream to orange-white, wrinkled.
Liquid culture Characteristics	Cream to orange-white (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

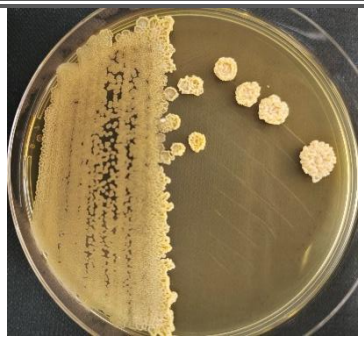
Biotechnological traits	Production of lipids, biosurfactants (MEL-A). Alkali-tolerant (pH 10).

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST923

Moesziomyces aphidis (Henninger & Windisch) Wang *et al.,* 2016

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Pseudozyma aphidis*		
Family	Ustilaginaceae	**Class**	Ustilaginomycetes
Order	Ustilaginales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	30/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344299	**NCBI ITS Accession Number**	PQ351577

Colony morphology	Cream to orange-white, wrinkled.
Liquid culture Characteristics	Cream to orange-white (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

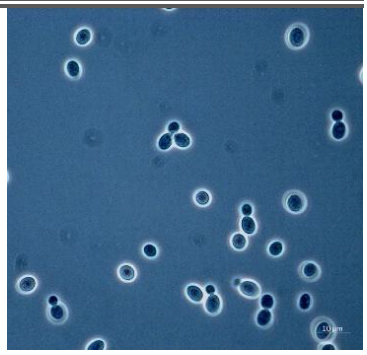
Biotechnological traits	Production of lipids, biosurfactants (MEL-A). Alkali-tolerant (pH 10).

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST925

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	02/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344301	**NCBI ITS Accession Number**	PQ351579

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

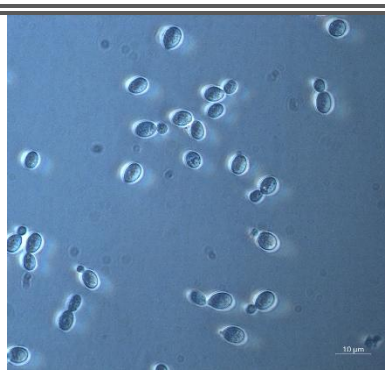
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST927

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	30/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344303	**NCBI ITS Accession Number**	PQ351581

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

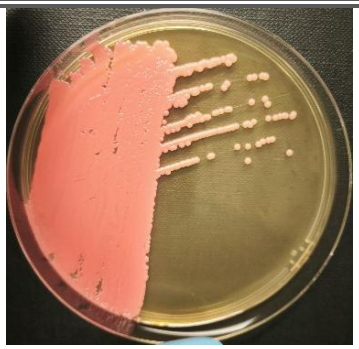
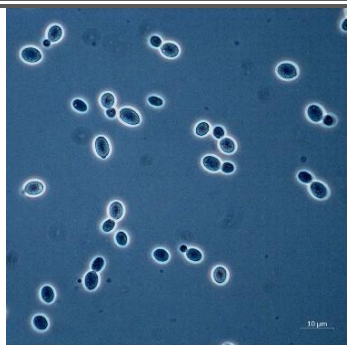
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST929

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	29/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344305	**NCBI ITS Accession Number**	PQ351583

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

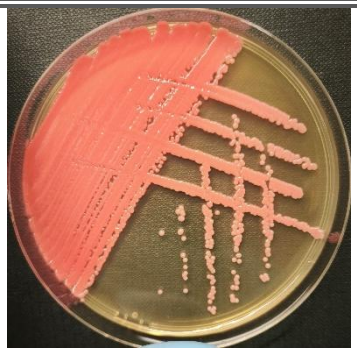
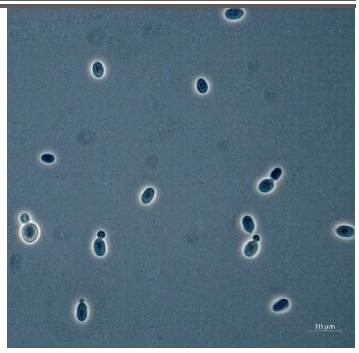
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST933

Rhodotorula taiwanensis Lee *et al.,* 2021

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	30/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344309	**NCBI ITS Accession Number**	PQ351587

Colony morphology	Salmon-pink to orange, slightly shiny and smooth
Liquid culture Characteristics	Salmon-pink to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

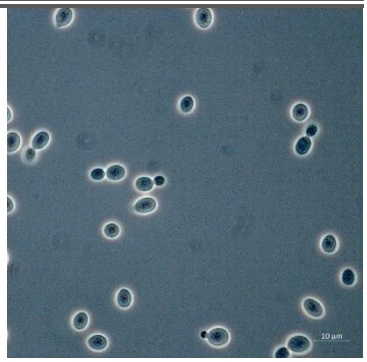
Biotechnological traits	Production of carotenoids, lipids, biosurfactants, exopolysaccharides. Tolerant to radiation and heavy metals.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST935

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	02/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344311	**NCBI ITS Accession Number**	PQ351589

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

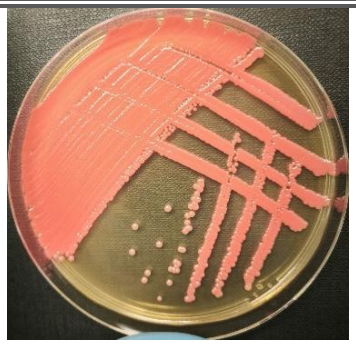
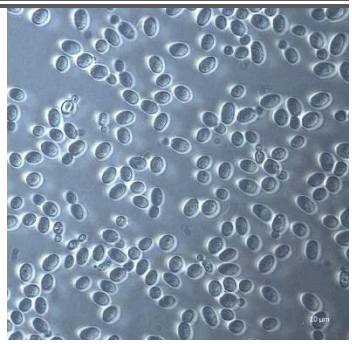
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST936

Rhodotorula taiwanensis Lee *et al.,* 2021

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	02/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344312	**NCBI ITS Accession Number**	PQ351590

Colony morphology	Salmon-pink to orange, slightly shiny and smooth
Liquid culture Characteristics	Salmon-pink to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

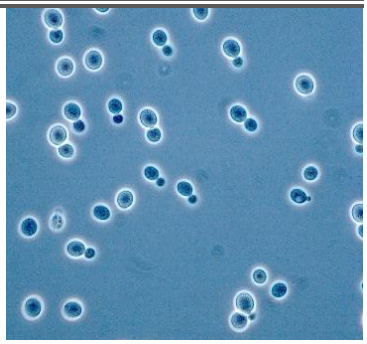
Biotechnological traits	Production of carotenoids, lipids, biosurfactants, exopolysaccharides. Tolerant to radiation and heavy metals.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST937

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea*, flask	**Collection Date**	02/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344313	**NCBI ITS Accession Number**	PQ351591

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

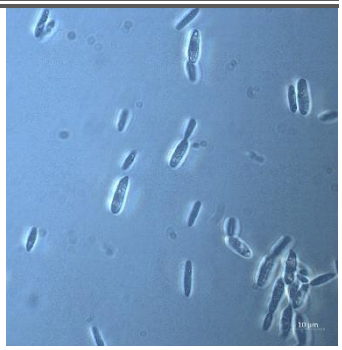
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST940

Moesziomyces aphidis (Henninger & Windisch) Wang *et al.,* 2016

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Pseudozyma aphidis*		
Family	Ustilaginaceae	**Class**	Ustilaginomycetes
Order	Ustilaginales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	29/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344316	**NCBI ITS Accession Number**	PQ351594

Colony morphology	Cream to orange-white, wrinkled.
Liquid culture Characteristics	Cream to orange-white (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of lipids, biosurfactants (MEL-A). Alkali-tolerant (pH 10).

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST941

Moesziomyces aphidis (Henninger & Windisch) Wang *et al.,* 2016

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Pseudozyma aphidis*		
Family	Ustilaginaceae	**Class**	Ustilaginomycetes
Order	Ustilaginales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	02/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344317	**NCBI ITS Accession Number**	PQ351595

Colony morphology	Cream to orange-white, wrinkled.
Liquid culture Characteristics	Cream to orange-white (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of lipids, biosurfactants (MEL-A). Alkali-tolerant (pH 10).

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST943

Moesziomyces aphidis (Henninger & Windisch) Wang *et al.,* 2016

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Pseudozyma aphidis*		
Family	Ustilaginaceae	**Class**	Ustilaginomycetes
Order	Ustilaginales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	26/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ344319	**NCBI ITS Accession Number**	PQ351597

Colony morphology	Cream to orange-white, wrinkled.
Liquid culture Characteristics	Cream to orange-white (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

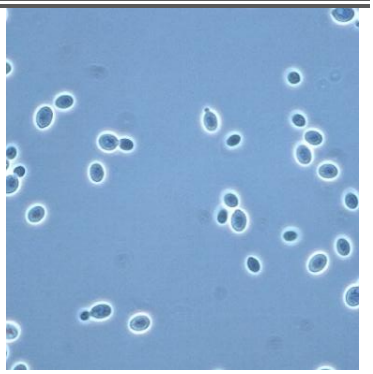
Biotechnological traits	Production of lipids, biosurfactants (MEL-A). Alkali-tolerant (pH 10).

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST945

Naganishia diffluens (Zach) Liu *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus diffluens*, *Cryptococcus albidus* var. *diffluens*		
Family	Filobasidiaceae	**Class**	Tremellomycetes
Order	Filobasidiales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea*, flask	**Collection Date**	08/05/2023
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346815	**NCBI ITS Accession Number**	PQ346857

Colony morphology	White to cream, mucoid
Liquid culture Characteristics	White to cream (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

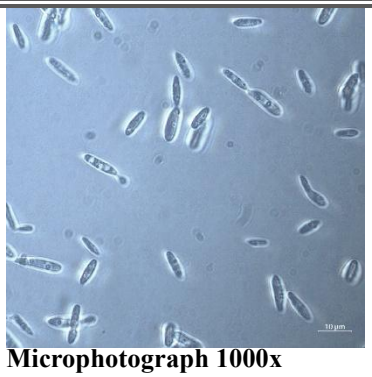
Biotechnological traits	Production of lipids.

References

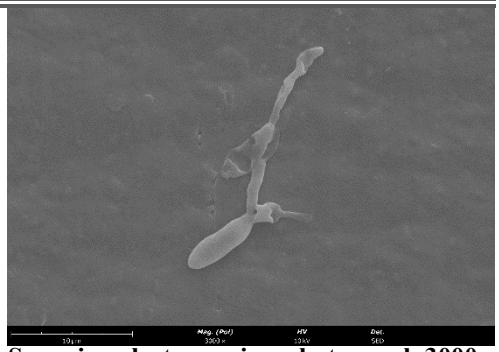
IST946

Moesziomyces aphidis (Henninger & Windisch) Wang *et al.,* 2016

Culture in YPD agar plate



Microphotograph 1000x



Scanning electron microphotograph 3000x

Taxon synonyms	*Pseudozyma aphidis*		
Family	Ustilaginaceae	**Class**	Ustilaginomycetes
Order	Ustilaginales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, flat panel	**Collection Date**	11/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346816	**NCBI ITS Accession Number**	PQ346858

Colony morphology	Cream to orange-white, wrinkled.
Liquid culture Characteristics	Cream to orange-white (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

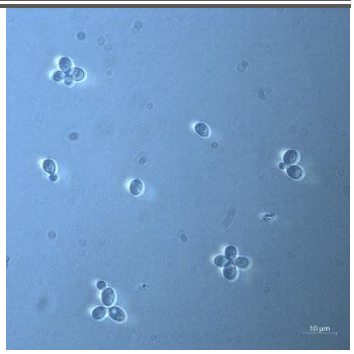
Biotechnological traits	Production of lipids, biosurfactants (MEL-A). Alkali-tolerant (pH 10).

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST948

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	29/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346818	**NCBI ITS Accession Number**	PQ346860

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

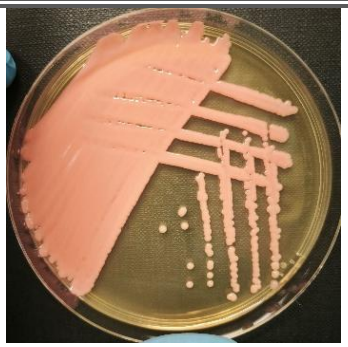
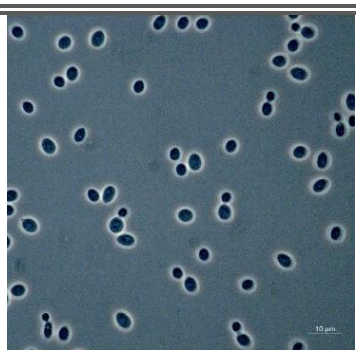
Biotechnological traits

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST951

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	29/04/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346821	**NCBI ITS Accession Number**	PQ346863

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

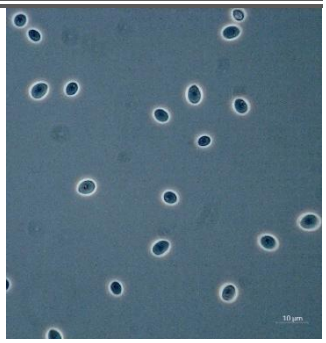
Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST952

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flat panel	**Collection Date**	05/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346822	**NCBI ITS Accession Number**	PQ346864

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

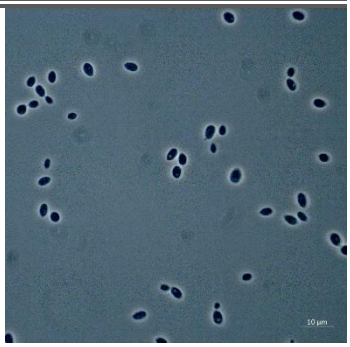
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

IST953

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana*, photobioreactor	**Collection Date**	20/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346823	**NCBI ITS Accession Number**	PQ346865

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

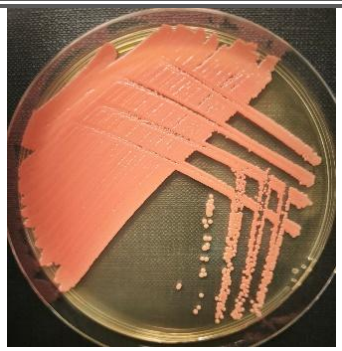
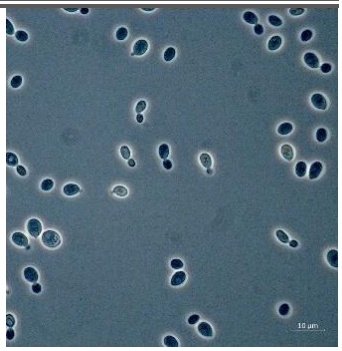
Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST955

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flat panel	**Collection Date**	28/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346825	**NCBI ITS Accession Number**	PQ346867

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

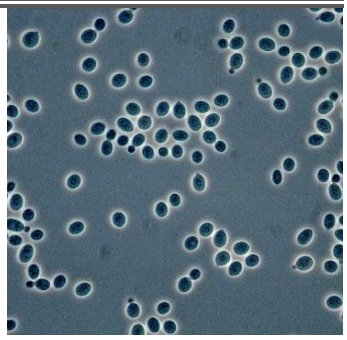
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

IST957

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flat panel	**Collection Date**	04/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346827	**NCBI ITS Accession Number**	PQ346869

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

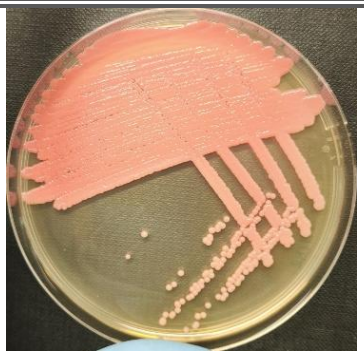
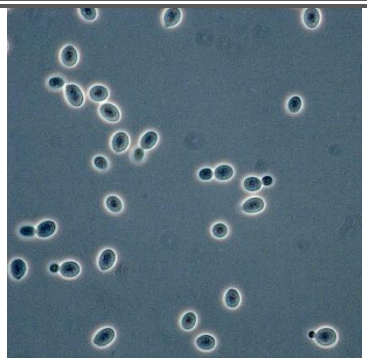
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST958

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flat panel	**Collection Date**	04/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346828	**NCBI ITS Accession Number**	PQ346870

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

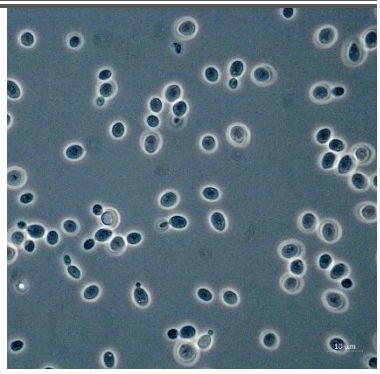
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

IST963

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flat panel	**Collection Date**	21/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380584	**NCBI ITS Accession Number**	PQ396240

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

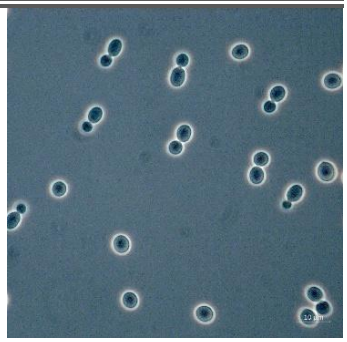
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

IST966

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flat panel	**Collection Date**	21/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380587	**NCBI ITS Accession Number**	PQ396243

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

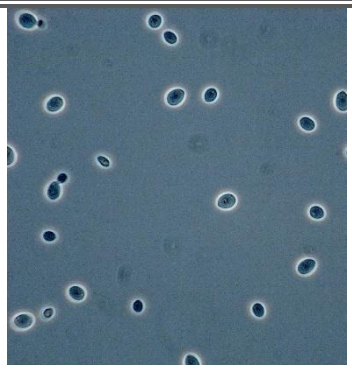
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST967

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* column	**Collection Date**	21/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380588	**NCBI ITS Accession Number**	PQ396244

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

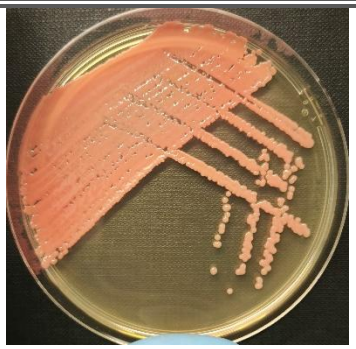
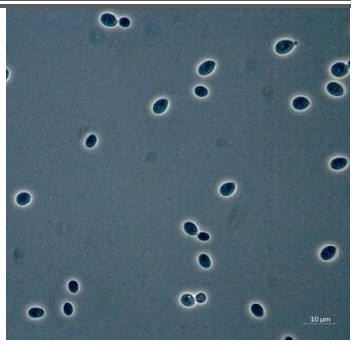
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

IST972

Rhodotorula sphaerocarpa (S.Y. Newell & Fell) Wang *et al.* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms			
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flat panel	**Collection Date**	04/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380593	**NCBI ITS Accession Number**	PQ396249

Colony morphology	Red to orange, smooth, moist to mucoid
Liquid culture Characteristics	Red to orange (in colorless medium)

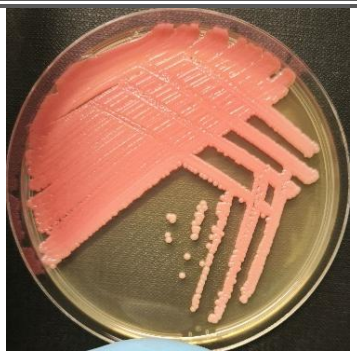
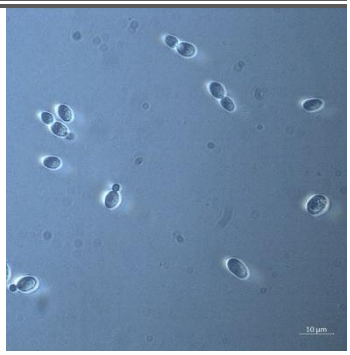
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids and biosurfactants.

References

IST974

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* photobioreactor	**Collection Date**	12/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346830	**NCBI ITS Accession Number**	PQ346872

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

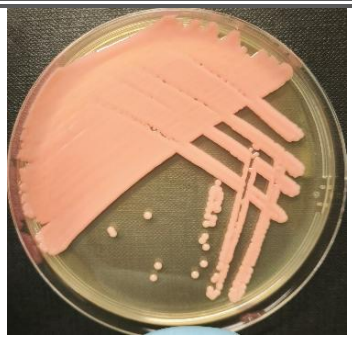
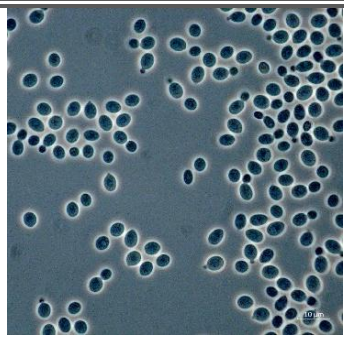
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

IST975

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* column	**Collection Date**	13/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346831	**NCBI ITS Accession Number**	PQ346873

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

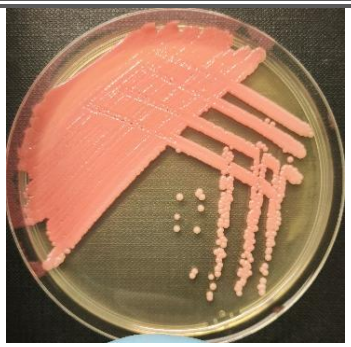
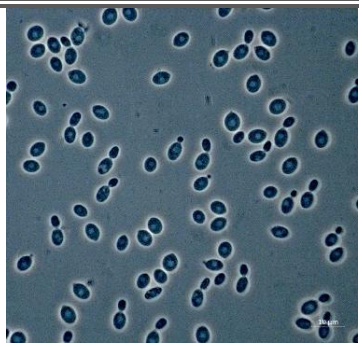
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST976

Rhodotorula diobovata (Newell & Hunter) Wang *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodosporidium diobovatum*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana,* photobioreactor	**Collection Date**	07/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346832	**NCBI ITS Accession Number**	PQ346874

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

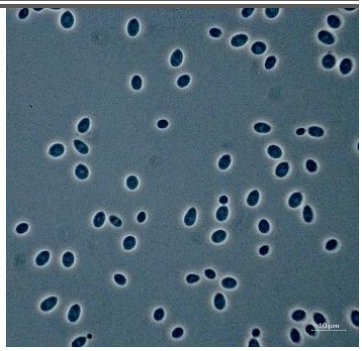
Biotechnological traits	Production of carotenoids, lipids, biosurfactants. Removal of inorganic nitrogen from the environment.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST978

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Microchloropsis gaditana,* photobioreactor	**Collection Date**	07/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346834	**NCBI ITS Accession Number**	PQ346876

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

IST986

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* column	**Collection Date**	14/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346842	**NCBI ITS Accession Number**	PQ346884

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

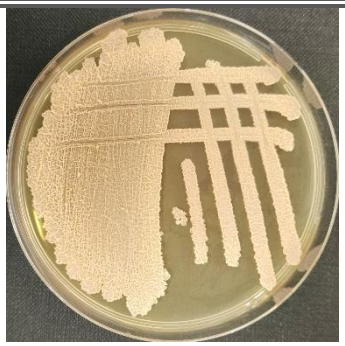
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits

References

IST987

Moesziomyces aphidis (Henninger & Windisch) Wang *et al.,* 2016

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Pseudozyma aphidis*		
Family	Ustilaginaceae	**Class**	Ustilaginomycetes
Order	Ustilaginales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* photobioreactor	**Collection Date**	12/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346843	**NCBI ITS Accession Number**	PQ346885

Colony morphology	Cream to orange-white, wrinkled.
Liquid culture Characteristics	Cream to orange-white (in colorless medium)

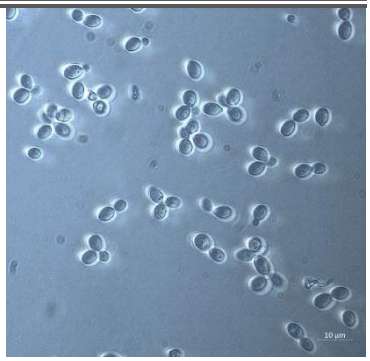
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of lipids, biosurfactants (MEL-A). Alkali-tolerant (pH 10).

References

IST988

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flask	**Collection Date**	13/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346844	**NCBI ITS Accession Number**	PQ346886

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

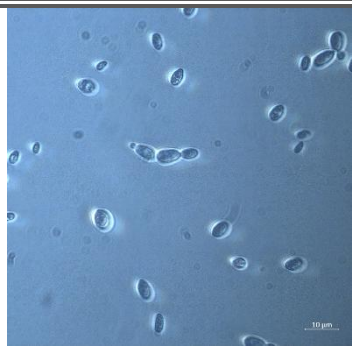
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits

References

IST989

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* photobioreactor	**Collection Date**	12/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346845	**NCBI ITS Accession Number**	PQ346887

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

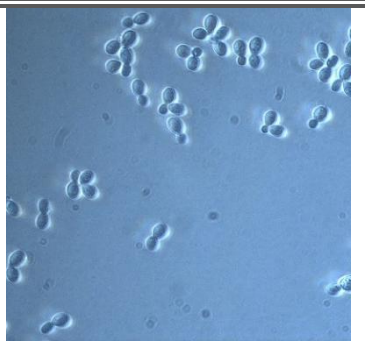
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits

References

IST997

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* column	**Collection Date**	13/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346853	**NCBI ITS Accession Number**	PQ346895

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

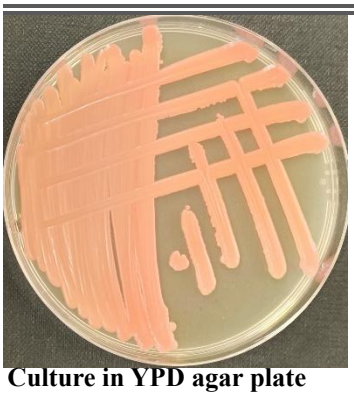
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits

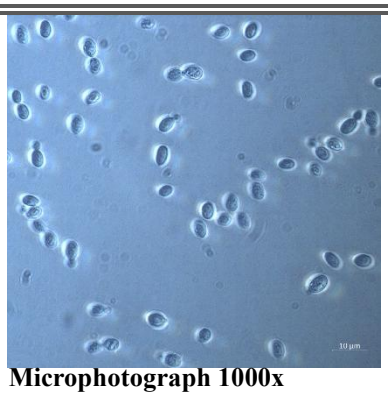
References

IST999

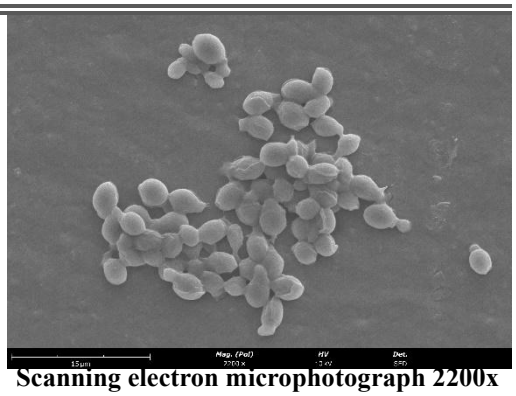
Cystobasidium slooffiae (Novak & Voros-Felkai) Yurkov *et al.,* 2014



Culture in YPD agar plate



Microphotograph 1000x



Scanning electron microphotograph 2200x

Taxon synonyms			
Family	Cystobasidiaceae	**Class**	Cystobasidiomycetes
Order	Cystobasidiales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* column	**Collection Date**	26/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346855	**NCBI ITS Accession Number**	PQ346897

Colony morphology	Light pink, moist to mucoid
Liquid culture Characteristics	Light pink (in colorless medium)

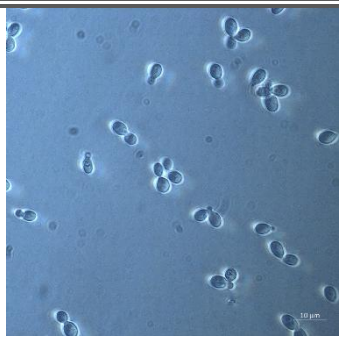
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits	Production of carotenoids.

References

IST1000

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flask	**Collection Date**	26/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ346856	**NCBI ITS Accession Number**	PQ346898

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

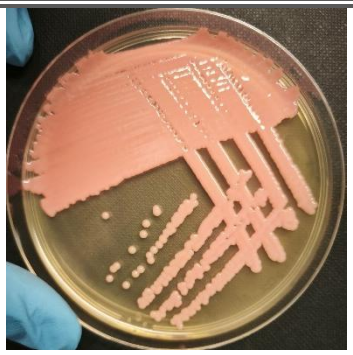
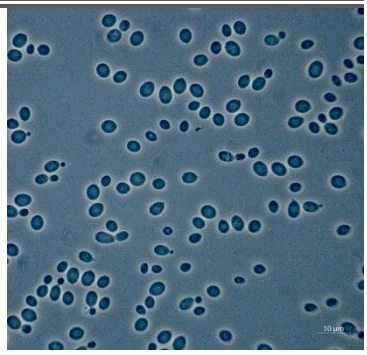
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits

References

IST1002

Rhodotorula mucilaginosa (A. Jörg.) F. C. Harrison, 1928

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Rhodotorula mucilaginosa*		
Family	Sporidiobolaceae	**Class**	Microbotryomycetes
Order	Sporidiobolales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* column	**Collection Date**	26/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380594	**NCBI ITS Accession Number**	PQ396250

Colony morphology	Coral pink, smooth, moist to mucoid
Liquid culture Characteristics	Coral pink (in colorless medium)

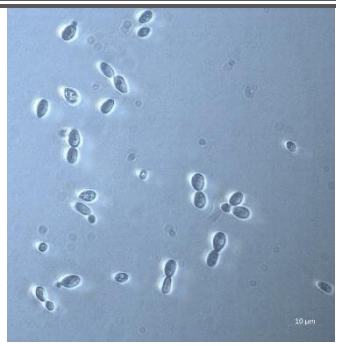
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	30 ºC		

Biotechnological traits	Production of carotenoids, lipids, exopolysaccharides and biosurfactants.

References

IST1004

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* photobioreactor	**Collection Date**	27/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380596	**NCBI ITS Accession Number**	PQ396252

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

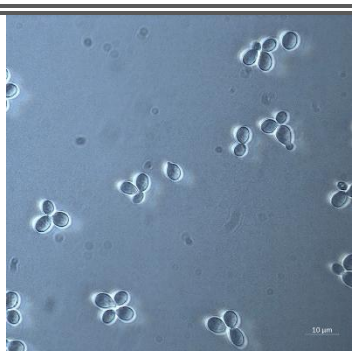
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits

References

IST1007

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* column	**Collection Date**	26/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380598	**NCBI ITS Accession Number**	PQ396254

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

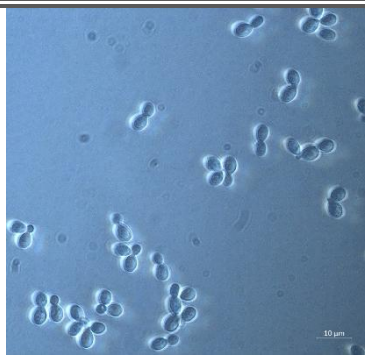
Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits

References

IST1008

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* column	**Collection Date**	26/06/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380599	**NCBI ITS Accession Number**	PQ396255

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits

References

IST1010

Vishniacozyma carnescens (Verona & Luchetti) Liu *et al.,* 2015

Culture in YPD agar plate		**Microphotograph 1000x**	

Taxon synonyms	*Cryptococcus carnescens, Torulopsis carnescens*		
Family	Bulleribasidiaceae	**Class**	Tremellomycetes
Order	Tremellales	**Phylum**	Basidiomycota

Collector(s)	Natacha Coelho, Inês Costa (Necton)		
Source	Culture of *Tisochrysis lutea,* flat panel	**Collection Date**	28/05/2024
Location	Necton, Olhão, Faro, Portugal	**Latitude & Longitude**	Unknown

Isolator(s)	Madalena Matos, Mónica Fernandes, Isabel Sá-Correia (iBB, IST, ULisboa)		
Basis for identication	Molecular (D1/D2 & ITS)		
NCBI 28S Accession Number	PQ380601	**NCBI ITS Accession Number**	PQ396257

Colony morphology	White to cream
Liquid culture Characteristics	White (in colorless medium)

Preservation Type	-80 ºC, 15% (v/v) glycerol	**Medium**	YPD
Temperature	22 ºC		

Biotechnological traits

References

Literature for IST-Yeasts Culture Collection strains

Matos, M.; Fernandes, M.A.; Costa, I.; Coelho, N.; Santos, T.F.; Rossetto, V.; Varela, J.; Sá-Correia, I. Culturable Yeast Diversity Associated with Industrial Cultures of the Microalga *Microchloropsis gaditana* and Their Ability to Produce Lipids and Biosurfactants. *J. Fungi* **2025**, *11*, 228. https://doi.org/10.3390/jof11030228

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	IST654	10
	IST675	13
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	IST735	24
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	IST739	27
	IST744	29
	IST753	30
	IST754	31
	IST779	36
	IST784	38
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	IST789	41
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	IST1004	113
	IST1007	114
	IST1008	115
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