The Microbial Ecology and Evolution Bacterial Culture Collection

Strain Catalogue

2025

Version 1.0

Instituto Superior Técnico

University of Lisbon

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MicroEcoEvo Culture Collection

Strain Catalogue

Microbial Ecology and Evolution Bacterial Culture Collection (acronym: **MicroEcoEvo^{CC}**)

The Microbial Ecology and Evolution Research Group (MicroEcoEvo) is part of the Biological Sciences Research Branch of the Institute for Bioengineering and Biosciences and the Department of Bioengineering at Instituto Superior Técnico, University of Lisbon.

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General Information

Diversity and provenance

The Microbial Ecology and Evolution (MicroEcoEvo) culture collection comprises > 1,800 strains of marine heterotrophic bacteria isolated from various host organisms such as marine sponges, corals, algae, and fish. It features diverse bacterial symbionts mostly classified into four phyla (*Pseudomonadota*, *Bacteroidota*, *Actinomycetota* and *Bacillota*) belonging to more than 60 genera. *Pseudovibrio*, *Ruegeria*, *Roseibium*, *Yoonia*/*Loktanella* (class *Alphaproteobacteria*), *Vibrio*, *Microbulbifer* (class *Gammaproteobacteria*) and *Aquimarina* (class *Cytophagia*) rank among the most frequent genera [1]. The novel species *Aquimarina aquimarini*, *Aquimarina spinulae* [2] and *Endozoicomonas lisbonensis* [3] underscore the taxonomic uniqueness of this collection. The strains available in this catalogue so far comprise three major bacterial phyla —*Pseudomonadota*, *Bacteroidota* and *Actinomycetota*. In this introductory note, a summary of the taxonomic and eco-physiological diversity within our collection is presented. Each phylum is contextualized according to the major genera represented in the catalogue.

This catalogue serves as a valuable resource for researchers, educators, and industry professionals, offering insights into the applications of these strains in marine environmental sustainability, industrial processes, and biomedical research. By delving into the unique characteristics of each strain, we aim to foster a deeper understanding of marine bacterial diversity from Portugal marine environment and its potential to address global challenges.

Bio-applications

The MicroEcoEvo collection is a repository of marine bacterial symbionts of high biotechnological value. It features coral and sponge-associated bacteria encoding putative novel natural products [1,4] with antibacterial, antifungal and antitumoral properties [1,5,6], bioluminescent symbionts of fish and corals, polyhydroxyalkanoate ("bioplastics")-producing bacteria [7], and growth-promoting, auxin and vitamin B12-producing symbionts of algae among our main study models. Their future application as probiotics for reef and aquaculture health is a research priority of the MicroEcoEvo team.

Metadata in brief

Number of strains: MicroEcoEvo^{CC} houses >1,800 strains of marine, heterotrophic bacteria stored and maintained by the MicroEcoEvo Research Group of the Biological Sciences Research Branch at the Institute for Bioengineering and Biosciences, Department of Bioengineering, Instituto Superior Técnico, University of Lisbon. The strains available for biobanking described in this catalogue correspond to phylogenetic lineages representing the diversity of the taxa most frequently isolated by our team. The catalogue contains only bacterial strains with whole genome sequences available and deposited in public databases. The current version presents 58 strain data sheets currently curated and available for biobanking. MicroEcoEvo^{CC} aims to reach a final list of 100 unique bacterial strains in its final catalogue.

Geographic origin: Portugal. Coasts from Algarve and Sesimbra; Algal Aquaculture, Aveiro. Host organisms: marine sponges, octocorals, green and red algae, fish larvae reared in

aquaculture, marine sediments, seawater. Physical deposition: Instituto Superior Técnico, University of Lisbon, Portugal.

Starting date of the collection: 2010

Patents: N/A

Services: Culture distribution

Taxonomy Notes

Approach

All pure cultures physically deposited in our facilities (n > 1,800 strains) are tentatively classified to the genus level by means of 16S rRNA gene sequencing. Closest 16S rRNA gene relatives, including type strains of formally described species, are defined for each strain of the collection following the methods described by Almeida *et al.* (2023), Couceiro *et al.* (2024), and Da Silva *et al.* (2025) [1-3]. Isolates representing phylogenetically unique lineages, potential novel species, and taxa of ecological and biotechnological relevance are subjected to whole genome sequencing. Our catalogue lists only bacterial strains possessing fully sequenced genomes.

Taxonomy assignment of all strains present in our catalogue is based on whole genome assessments and metrics. To this end, we use the Genome Taxonomy Database Toolkit (GTDB-tk) to classify our strains at the most precise taxonomic rank possible and use average nucleotide identity (ANI) metrics against their closest genome relatives (including type material) to infer whether our strains may represent novel bacterial species, according to the methodology described in Almeida *et al.* (2023) [1]. The validity of taxon names proposed in our strain sheets is checked and revised continuously according to the List of Prokaryotic Names with Standing in Nomenclature (LPSN – https://lpsn.dsmz.de/).

Below, we provide a brief overview of strains present in our catalogue belonging to the phyla *Pseudomonadota*, *Bacteroidota* and *Actinomycetota*.

Phylum *Pseudomonadota*

Brief Systematics. The phylum *Pseudomonadota* (formerly *Proteobacteria*) [8] is one of the most diverse and ecologically significant groups of bacteria, encompassing a wide range of metabolic strategies and adaptations. This phylum consists of eight validly published classes: *Acidithiobacillia*, *Alphaproteobacteria*, *Betaproteobacteria*, *Deltaproteobacteria*, *Epsilonproteobacteria*, *Gammaproteobacteria,* *Hydrogenophilia* and *Oligoflexia* (https://lpsn.dsmz.de/phylum/pseudomonadota). Members of this phylum are ubiquitous, thriving in environments ranging from soil and marine to symbiotic associations with plants and animals.

Ecological and Biotechnological Potential. The *Pseudomonadota* strains in our collection exhibit significant ecological and biotechnological potential. They may play critical roles in nutrient cycling, particularly in nitrogen fixation and carbon mineralization [9]. Furthermore,

their ability to degrade environmental pollutants makes them a target for bioremediation efforts. Moreover, many members from this phylum are currently utilized for the production of bioplastics, biosurfactants, and bioactive compounds [9].

Major Genera in the Collection. The current catalogue includes 50 strains with whole-genome sequences from several genera within the *Pseudomonadota* phylum, usually belonging to the *Alphaproteobacteria* and *Gammaproteobacteria* classes. Three major genera represented in our collection include:

- **Genus *Vibrio* Pacini 1854 (Approved Lists 1980) (8 strains)**: The MicroEcoEvo Culture Collection hosts a diverse array of bacterial strains, with a notable representation of the *Vibrio* genus [10]. Eight of the 58 bacterial strains in the catalogue belong to this genus, which contains representatives of the species *Vibrio atlanticus*, *Vibrio coralliirubri*, *Vibrio jasicida* and *Vibrio chagasii*, along with strains non-classifiable at the species level. The wealth of genomic data from these strains provides insights into their ecological roles and potential applications in fields such as aquaculture and marine biotechnology [11,12]. Indeed, *Vibrio* species are renowned for their adaptability and versatility, often forming symbiotic, commensal, or pathogenic relationships with marine hosts. The *Vibrio* strains in our collection were isolated from a wide range of marine hosts, reflecting their broad ecological range. These include marine sponges (*Sarcotragus spinosulus*), gorgonian corals (*Eunicella verrucosa*), and gilthead seabream fish larvae (*Sparus aurata*). Their prevalence in the collection underscores their wide distribution across marine ecosystems and may foster their use in bioremediation, biocontrol, and antimicrobial discovery research [13,14].

- **Genus *Ruegeria* Uchino *et al.* 1999 (3 strains)**: The genus *Ruegeria*, established by Uchino et al. in 1999, is an important taxon in the *Roseobacteraceae* family. To this date, this genus comprises 23 species with validly published and correct names standing in bacterial nomenclature (https://lpsn.dsmz.de/genus/ruegeria). Initially identified as marine-inhabiting *Agrobacterium* species, this genus is characterised as Gram-negative bacteria with ovoid to rod-shaped cells measuring 0.6–1.6 × 1.0–4.0 µm in size. These bacteria are either motile by polar flagella or nonmotile, do not form spores, and are strictly aerobic. They test positive for oxidase and catalase but do not engage in photosynthetic growth, as they lack bacteriochlorophyll a [15].

  One of the most studied species within this genus is *Ruegeria pomeroyi* DSS-3, which serves as a model organism for understanding the physiological and ecological roles of marine bacteria. Notably, it plays a crucial role in the ocean's sulfur and carbon cycles [16]. From a biotechnological perspective, certain coral-associated *Ruegeria* species exhibit potential as marine probiotics due to their ability to inhibit the growth of the coral pathogen *Vibrio coralliilyticus* [17].

  Three *Ruegeria* strains feature our catalogue: Alg231_54 and Alg239-R130, isolated from the marine sponge *Spongia* aff. *officinalis* and strain EL27, isolated from the gorgonian coral *Eunicella labiata*. While strain Alg239-R130 could be identified as *Ruegeria mediterranea*, the other two strains could no be classified at the species level, highlighting the taxonomic uniqueness of *Ruegeria* spp. present in the collection.

- **Genus *Roseibium* Suzuki *et al.* 2000 (09 strains)**: The genus *Roseibium* belongs to the family *Stappiaceae* within the class *Alphaproteobacteri*a. It comprises 17 species with validly published and correct names (https://lpsn.dsmz.de/genus/roseibium). Members of this genus are known for their ecological versatility. *Roseibium* species are typically associated with marine environments, including tidal mudflats, coastal seawater, and particularly as symbionts of marine invertebrates, such as corals and sponges [18].

  MicroEcoEvo^{CC} houses nine *Roseibium* strains, all of which with whole-genomes available, providing a comprehensive genomic resource for exploring the genus's ecological and biotechnological potential. Nine of these strains were isolated from the gorgonian coral *Eunicella labiate* and were identified as *Roseibium album*. The ninth strain, *Roseibium* sp. Alg231_36, was isolated from the marine sponge *Spongia* aff. *officinalis*. The genomic data stored in our collection serves as a valuable repository for uncovering novel traits, such as secondary metabolite production, stress tolerance mechanisms, and host-symbiont interactions, which can be harnessed for biotechnological applications and deeper understanding of host-*Roseibium* interactions.

Phylum *Bacteroidota*

Brief Systematics. The *Bacteroidota* phylum (formerly *Bacteroidetes*) Krieg *et al.* 2021 [19] is a group of Gram-negative bacteria that are predominantly associated with the degradation of complex organic matter in various environments, including the animal gut, where they play a crucial role in polysaccharide digestion and nutrient acquisition [20]. This phylum comprises seven validly published classes (https://lpsn.dsmz.de/phylum/bacteroidota). Members of this phylum are ubiquitous, thriving in across terrestrial, freshwater and marine ecosystems, known to form associations with plants and animals, and to contribute to the breakdown of cellulose, chitin, and other recalcitrant polymers [21].

Ecological and Biotechnological Potential. The *Bacteroidota* strains in our collection are of presumed ecological relevance due to their potential roles in carbon and nitrogen cycling and organic matter decomposition. In biotechnology, these strains are explored for their potential in bioenergy production, particularly in the conversion of lignocellulosic biomass into biofuels. Additionally, their ability to produce extracellular enzymes such as cellulases and chitinases makes them valuable for industrial enzyme production.

The current catalogue contains one strain classified in the order *Cytophagales* and eight strains belonging to the metabolically versatile genus *Aquimarina* [4-6], including the novel species *Aquimarina aquimarini* and *Aquimarina spinulae* [2]. A detailed overview of representative strains in the phylum *Bacteroidota* is in preparation and will be published in the second version of this catalogue.

Phylum *Actinomycetota*

The current catalogue contains three strains classified in the *Actinomycetota* phylum, well known for the remarkable diversity of bioactive natural products synthesized by some of its lineages. The three strains present in the catalogue each belong to a different genus, namely *Dietzia*, *Micrococcus*, and *Microbacterium*. A detailed overview of representative strains in the

phylum *Actinomycetota* is in preparation and will be published in the second version of this catalogue.

Concluding remarks and outlook

MicroEcoEvo^{CC} holds valuable resources for the study of marine symbioses, bacterial metabolism, and biotechnological applications derived from host-microbe interactions. This catalogue serves as a foundation for current and future research, fostering innovation in fields such as environmental sustainability, industrial biotechnology, and biomedical science. We invite researchers and industry professionals to explore the potential of these strains and collaborate with us in advancing the frontiers of knowledge in marine microbiology and biotechnology within a One Health framework.

Terms and conditions

Ordering

Detailed information on how to order strains from our catalogue is provided on our website. You can place your order interactively through our digital database by selecting one or more strains, adding them to your cart, and proceeding to check out. Alternatively, you can select strains from this catalogue and manifest your interest in purchasing them per e-mail.

MicroEcoEvo^{CC} will contact the applicant confirming/denying the request, sending the appropriate Material Transfer Agreement (MTA), specific to the cultures requested and providing payment instructions. By ordering strains from MicroEcoEvo^{CC}, the customer agrees to not re-sell, borrow, transfer, or give our strains to third parties. Please check our **terms and conditions** in detail here.

Prices

- For academic/non-profit use: 60€/strain*.

- Selected strains for teaching purposes (applicable for Portuguese schools/universities only): 20€/strain*.

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

Shipping

Shipping costs are borne by customers and are normally performed 3-4 weeks after ordering and payment. Supply of strains at shorter notice cannot be guaranteed. We cannot guarantee the viability of strain cultures upon receipt. Yet, if TECNICO_CC is notified within 2 weeks of dispatch, in case cultures arrive in an unsatisfactory condition, we can replace them. In this case, the customer will be charged only for shipping.

Prior to any shipment, the purity, morphological traits, growth and fitness of the strain are visually inspected.

Please visit our webpage for more details on Pricing & Shipping

Strain Sheets

Version 1.0

Instituto Superior Técnico

University of Lisbon

Strain ID: *Vibrio* sp. MEE001

Alternative designations: *Vibrio* sp. Vb339,

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Vibrio*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Incubation temperature: 25°C

Colony morphology: Circular form, effuse elevation, entire margins, smooth surface and translucent

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge (wild)

Host scientific name: *Sargotragus spinosulus*

Location: Armação de Pêra, Algarve

Latitude and longitude: 37.069333 N 8.331139 W

Collection depth: 15m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Ana Esteves

Identifier(s): Rodrigo Costa, Ana Esteves

Accession number (16S rRNA gene): HE818375

Accession number (other genes): (-)

Accession number (Genome GenBank assembly): GCA_902751245.1

Publicly available articles: 10.1128/genomeA.00521-15, 10.1111/1574-6941.12140

Strain ID: *Vibrio coralliirubri* MEE002

Alternative designations: *Vibrio coralliirubri* Vb278

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Vibrio*, s.: *V. coralliirubri*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, effuse elevation, entire margins, smooth surface and translucent

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Sargotragus spinosulus*

Location: Galé Alta, Algarve

Latitude and longitude: 37.069333 N 8.331139 W

Collection depth: 15m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Ana Esteves

Identifier(s): Rodrigo Costa, Ana Esteves

Accession number (16S rRNA gene): HE818324

Accession number (other genes): (-)

Accession number (Genome GenBank assembly): GCA_000983095.1

Publicly available articles: doi: 10.1128/genomeA.00521-15, doi: 10.1111/1574-6941.12140

Strain ID: *Aquimarina* sp. MEE003

Alternative designations: *Aquimarina* sp. Aq78

Taxonomy: p.: *Bacteroidota*, c.: *Flavobacteriia*, o.: *Flavobacteriales*, f.: *Flavobacteriaceae*, g.: *Aquimarina*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: circular form, convex elevation, entire margins, concentric surface, orange water-insoluble pigment

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Sargotragus spinosulus*

Location: Galé Alta, Algarve

Latitude and longitude: 37.069333 N 8.331139 W

Collection depth: 15m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Ana Esteves

Identifier(s): Rodrigo Costa, Ana Esteves

Accession number (16S rRNA gene): HE818244

Accession number (other genes): (-)

Accession number (Genome GenBank assembly): GCA_900299525.1

Publicly available articles: doi: 10.1111/1462-2920.14747, doi: 10.1111/1574-6941.12140

Strain ID: *Aquimarina* sp. MEE004
Alternative designations: *Aquimarina* sp. Aq107

Taxonomy: p.: *Bacteroidota*, c.: *Flavobacteriia*, o.: *Flavobacteriales*, f.: *Flavobacteriaceae*, g.: *Aquimarina*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, flat elevation, entire margins, rugose surface, orange water-insoluble pigment

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Sargotragus spinosulus*

Location: Galé Alta, Algarve

Latitude and longitude: 37.069333 N 8.331139 W

Collection depth: 15m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Ana Esteves

Identifier(s): Rodrigo Costa, Ana Esteves

Accession number (16S rRNA gene): HE818268

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900299505.1

Publicly available articles: doi: 10.1111/1462-2920.14747, doi: 10.1111/1574-6941.12140

Strain ID: *Aquimarina aquimarini* MEE005

Alternative designations: *Aquimarina aquimarini* Aq135

Taxonomy: p.: *Bacteroidota*, c.: *Flavobacteriia*, o.: *Flavobacteriales*, f.: *Flavobacteriaceae*, g.: *Aquimarina*, s.: *A. aquimarini*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Rhizoid shape, effuse elevation, erose margins, radiate surface, yellow water-insoluble pigment

Cell morphometrics:

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Ircinia variabilis*

Location: Galé Alta, Algarve

Latitude and longitude: 37.069333 N 8.331139 W

Collection depth: 15m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Ana Esteves

Identifier(s): Rodrigo Costa, Ana Esteves

Accession number (16S rRNA gene): HE818118

Accession number (other genes): (-)

Accession number (Genome GenBank assembly): GCA_900299535.1

Publicly available articles: doi: 10.1111/1462-2920.14747, doi: 10.1111/1574-6941.12140, doi: 10.1099/ijsem.0.006228

Strain ID: *Aquimarina spinulae* MEE006

Alternative designations: *Aquimarina spinulae* Aq349

Taxonomy: p.: *Bacteroidota*, c.: *Flavobacteriia*, o.: *Flavobacteriales*, f.: *Flavobacteriaceae*, g.: *Aquimarina*, s.: *A. spinulae*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, effuse elevation, entire margins, contoured surface, orange water-insoluble pigment

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Sargotragus spinosulus*

Location: Galé Alta, Algarve

Latitude and longitude: 37.069333 N 8.331139 W

Collection depth: 15m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Ana Esteves

Identifier(s): Rodrigo Costa, Ana Esteves

Accession number (16S rRNA gene): HE818385

Accession number (other genes): (-)

Accession number (Genome GenBank assembly): GCA_900299485.1

Publicly available articles: doi: 10.1099/ijsem.0.006228 doi: 10.1111/1462-2920.14747 doi: 10.1111/1574-6941.12140

Strain ID: *Vibrio coralliirubri* ME007

Alternative designations: *Vibrio coralliirubri* Evh12

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Vibrio*, s.: *V. coralliirubri*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, effuse elevation, entire margins, smooth surface, translucent

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella verrucosa*

Location: Sagres, Algarve

Latitude and longitude: 37.008839 N 8.924889 W

Collection depth: 15m

External information and credits

Collector(s): Catarina Cúcio

Isolator(s): Catarina Cúcio

Identifier(s): Rodrigo Costa, Catarina Cúcio

Accession number (16S rRNA gene): HE962270

Accession number (other genes): (-)

Accession number (Genome GenBank assembly): GCA_001486525.1

Publicly available articles: doi: 10.1128/genomeA.01729-15

Strain ID: *Vibrio atlanticus* MEE008

Alternative designations: *Vibrio atlanticus* Evh13

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Vibrio*, s.: *V. atlanticus*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, effuse elevation, entire margins, radiate surface, translucent

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella verrucosa*

Location: Faro, Algarve

Latitude and longitude: 37.008839 N 8.924889 W

Collection depth: 15m

External information and credits

Collector(s): Catarina Cúcio

Isolator(s): Catarina Cúcio

Identifier(s): Rodrigo Costa, Catarina Cúcio

Accession number (16S rRNA gene): HE962271

Accession number (other genes): (-)

Accession number (Genome GenBank assembly): GCF_900382745.1

Publicly available articles: doi: 10.3390/md16120485

Strain ID: *Vibrio* sp. MEE009

Alternative designations: *Vibrio* sp. Evd11

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Vibrio*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, effuse elevation, curled margins, contoured surface, translucent

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella verrucosa*

Location: Faro, Algarve

Latitude and longitude: 37.008839 N 8.924889 W

Collection depth: 15m

External information and credits

Collector(s): Catarina Cúcio

Isolator(s): Catarina Cúcio

Identifier(s): Rodrigo Costa, Catarina Cúcio

Accession number (16S rRNA gene): HE962253

Accession number (other genes): (-)

Accession number (Genome GenBank assembly): GCA_900382755.1

Publicly available articles: doi: 10.3390/md16120485

Strain ID: *Vibrio coralliirubri* MEE010

Alternative designations: *Vibrio coralliirubri* Evd3

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Vibrio*, s.: *V. coralliirubri*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, effuse elevation, entire margins, smooth surface, translucent

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 10/06/2010

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella verrucosa*

Location: Faro, Algarve

Latitude and longitude: 37.008839 N 8.924889 W

Collection depth: 15m

External information and credits

Collector(s): Catarina Cúcio

Isolator(s): Catarina Cúcio

Identifier(s): Rodrigo Costa, Catarina Cúcio

Accession number (16S rRNA gene): HE962245

Accession number (other genes): []

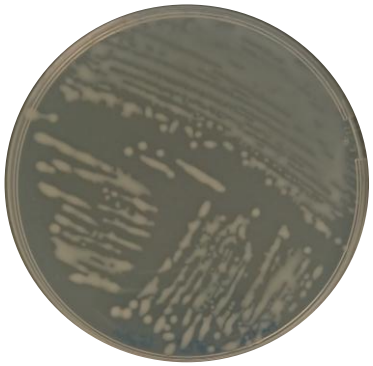
Accession number (Genome GenBank assembly): GCA_900379685.1

Publicly available articles: doi: 10.3390/md16120485

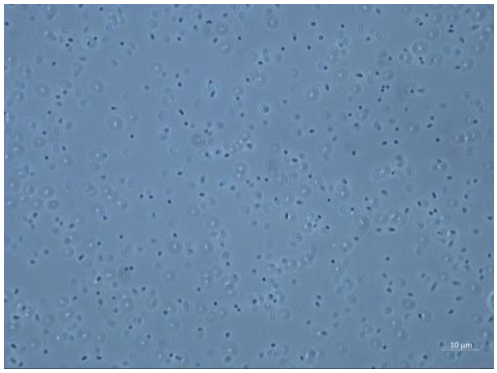
Strain ID: *Vibrio jasicida* MEE011
Alternative designations: *Vibrio jasicida* 20LP

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Vibrio*, s.: *V. jasicida*.

Photograph:



Petri dish growth.



1000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: creamy white, circular, smooth, convex, with entire margin, 5–7 mm in diameter

Cell morphometrics: rods, 0.5 µm wide, 1.0–1.5 µm long, flagellated

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 08/04/2013

Biome or Habitat: Fish-rearing system

Environment: Aquatic, marine

Host common name: Marine fish (captive)

Host scientific name: *Sparus aurata*

Location: Olhão, Algarve Portugal

Latitude and longitude: 37.023736 N, 7.843572 W

Collection depth: –

External information and credits

Collector(s): Gianmaria Califano

Isolator(s): Gianmaria Califano

Identifier(s): Rodrigo Costa, Gianmaria Califano

Accession number (16S rRNA gene): –

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_903995475.1

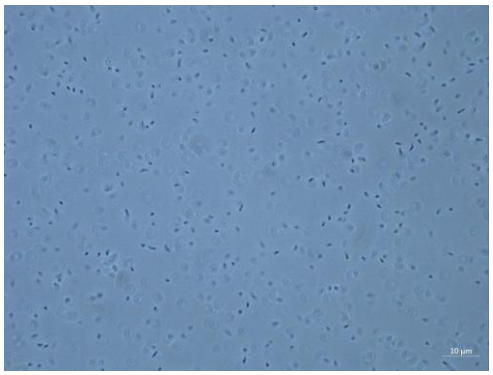
Publicly available articles: doi: 10.1128/mra.00813-21, doi: 10.3390/md21010034

Strain ID: *Vibrio chagasii* MEE012
Alternative designations: *Vibrio chagasii* 18LP

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Vibrio*, s.: *V. chagasii*.

Photograph:

Petri dish growth.



1000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, creamy white, smooth, convex, with entire margin, 3–4 mm in diameter

Cell morphometrics: slightly curved, 1 µm wide, 2–3 µm long, flagellated

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 08/04/2013

Biome or Habitat: Fish-rearing system

Environment: Aquatic, marine

Host common name: Marine fish (captive)

Host scientific name: *Sparus aurata*

Location: Olhão, Algarve Portugal

Latitude and longitude: 37.023736 N, 7.843572 W

Collection depth: –

External information and credits

Collector(s): Gianmaria Califano

Isolator(s): Gianmaria Califano

Identifier(s): Rodrigo Costa, Gianmaria Califano

Accession number (16S rRNA gene): –

Accession number (other genes): []

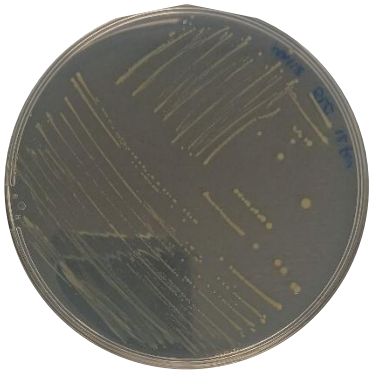
Accession number (Genome GenBank assembly): GCA_903995485.1

Publicly available articles: doi: 10.1128/mra.00658-21, doi: 10.3390/md21010034

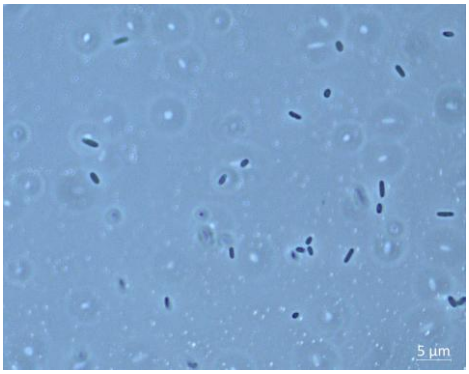
Strain ID: *Aliivibrio fischeri* MEE013
Alternative designations: *Aliivibrio fischeri* 5LC

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Aliivibrio*, s.: *A. fischeri.*

Photograph:



Petri dish growth.



1000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, light yellow, smooth, convex, with entire margin, 2–5 mm in diameter

Cell morphometrics: rods, 0.6 µm wide, 2.5 µm long, flagellated

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: Bioluminescence

Biotechnological interest: []

Original sample collection

Collection date: 08/04/2013

Biome or Habitat: Fish-rearing system

Environment: Aquatic, marine

Host common name: Marine fish (captive)

Host scientific name: *Sparus aurata*

Location: Olhão, Algarve Portugal

Latitude and longitude: 37.023736 N, 7.843572 W

Collection depth: –

External information and credits

Collector(s): Gianmaria Califano

Isolator(s): Gianmaria Califano

Identifier(s): Rodrigo Costa, Gianmaria Califano

Accession number (16S rRNA gene): –

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_000985635.1

Publicly available articles: doi: 10.1128/genomea.00593-15, doi: 10.3390/md21010034

Strain ID: *Ruegeria* sp. MEE014
Alternative designations: *Ruegeria* sp. EL01

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Ruegeria*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, white, smooth, convex, with entire margin, 1–4 mm in diameter

Cell morphometrics: rods, 0.6–1.6 µm wide, 1.0–4.0 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461358

Accession number (other genes): []

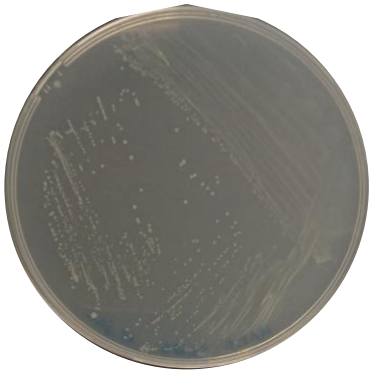
Accession number (Genome GenBank assembly): GCA_900313035.1

Publicly available articles: doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

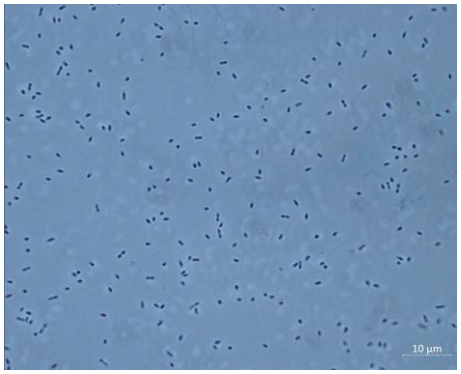
Strain ID: *Roseovarius* sp. MEE015
Alternative designations: *Roseovarius* sp. EL26

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Roseovarius*, s.: (-).

Photograph:



Petri dish growth.



1000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, translucent white, smooth, convex, with entire margin, 1–4 mm in diameter

Cell morphometrics: rods, 0.4 µm wide, 1.1 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461365

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900327775.1

Publicly available articles: doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

Strain ID: *Pseudophaeobacter* sp. MEE016
Alternative designations: *Pseudophaeobacter* sp. EL27

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Pseudophaeobacter*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, creamy white, smooth, convex, with entire margin, 1–2 mm in diameter

Cell morphometrics: rods, 0.3–0.5 µm wide, 1.0–2.6 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461372.1

Accession number (other genes): []

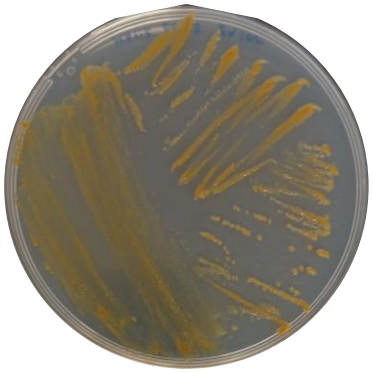
Accession number (Genome GenBank assembly): GCA_900313025.1

Publicly available articles: doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

Strain ID: *Aquimarina megaterium* MEE017
Alternative designations: *Aquimarina megaterium* EL33

Taxonomy: p.: *Bacteroidota*, c.: *Flavobacteriia*, o.: *Flavobacteriales*, f.: *Flavobacteriaceae*, g.: *Aquimarina*, s.: *A. megaterium.*

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, orange, opaque, convex, irregular with non-entire margin, 1.0–1.5 mm in diameter

Cell morphometrics: rods, 0.5 µm wide, 5.4–77.8 µm long, non-flagellated

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461393.1

Accession number (other genes): []

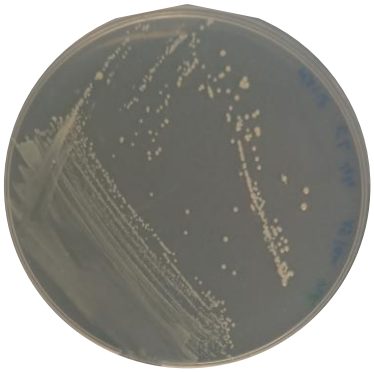
Accession number (Genome GenBank assembly): GCA_900089995.1

Publicly available articles: doi: 10.1128/genomea.00855-16, doi: 10.1093/femsec/fix143, doi: 10.1111/1462-2920.14747, doi: 10.3390/md21010034

Strain ID: *Sulfitobacter mediterraneus* MEE018
Alternative designations: *Sulfitobacter mediterraneus* EL44

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Sulfitobacter*, s.: *S. mediterraneus.*

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, translucent and cream-coloured, convex, with entire or undulate margin, 1.2–1.4 mm in diameter

Cell morphometrics: rods, 0.5–0.8 µm wide, 1–3 µm long, flagellated

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461370

Accession number (other genes): []

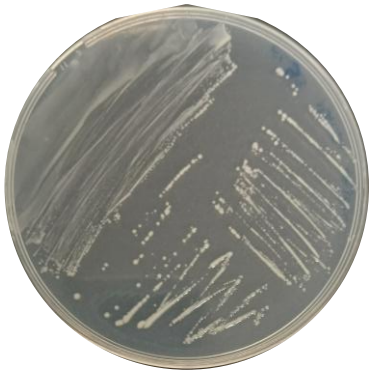
Accession number (Genome GenBank assembly): GCA_900313045.1

Publicly available articles: doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

Strain ID: *Roseobacteraceae* bacterium MEE019
Alternative designations: *Roseobacteraceae* bacterium EL53

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: (-), s.: (-).

Photograph:



Petri dish growth.

1000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, creamy white, convex, with entire margin, 1–4 mm in diameter

Cell morphometrics: rods, 1.6 µm wide, 5 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461387

Accession number (other genes): []

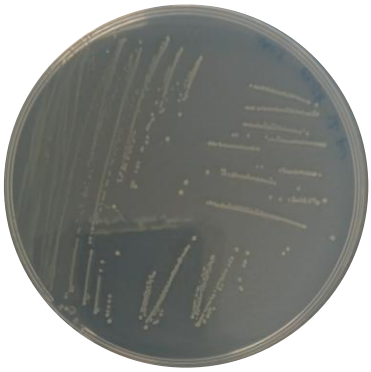
Accession number (Genome GenBank assembly): GCA_900313015.1

Publicly available articles: doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

Strain ID: *Aliivibrio* sp. MEE020
Alternative designations: *Aliivibrio* sp. EL58

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Aliivibrio*, s.:(-).

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, cream, convex, smooth, with entire margin, 1–3 mm in diameter

Cell morphometrics: rods

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: Bioluminescence

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461376

Accession number (other genes): []

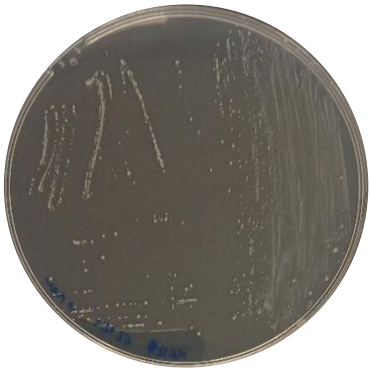
Accession number (Genome GenBank assembly): GCA_900312675.1

Publicly available articles: doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

Strain ID: *Roseobacteraceae* bacterium MEE021
Alternative designations: *Roseobacteraceae* bacterium EL129

Taxonomy: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: (-), s.: (-).

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, translucent white, convex, smooth, with entire margin, 1–2 mm in diameter

Cell morphometrics: rods

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461394

Accession number (other genes): []

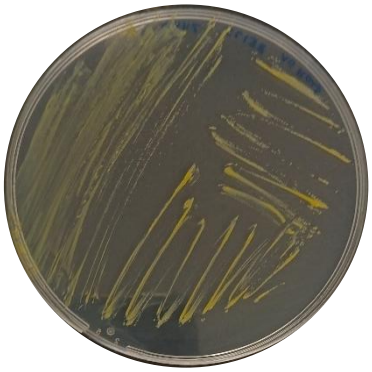
Accession number (Genome GenBank assembly): GCA_900313005.1

Publicly available articles: doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

Strain ID: *Sphingorhabdus* sp. MEE022
Alternative designations: *Sphingorhabdus* sp. EL138

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Sphingomonadales*, f.: *Sphingomonadaceae*, g.: *Sphingorhabdus*, s.: (-).

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, yellow-orange, convex, smooth, with entire margin, 1 mm in diameter

Cell morphometrics: rods, 0.5 µm wide, 1.1 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics:

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461368

Accession number (other genes): []

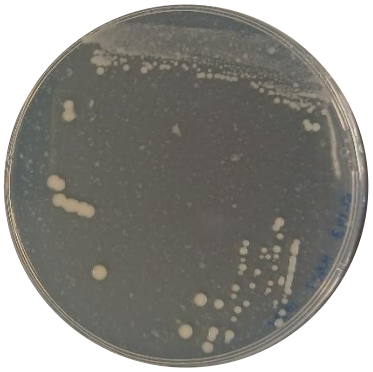
Accession number (Genome GenBank assembly): GCA_900258045.1

Publicly available articles: doi: 10.1128/genomea.00142-18, doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

Strain ID: *Roseibium album* MEE023
Alternative designations: *Roseibium album* EL143

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Roseibium*, s.: *R. album.*

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, translucent white, convex, smooth, with entire margin, 1–5 mm in diameter

Cell morphometrics: rods, 1 µm wide, 2–4 µm long, flagellated

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461364

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900258415.1

Publicly available articles: doi: 10.1128/genomea.00142-18, doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

Strain ID: *Kiloniella* sp. MEE024
Alternative designations: *Kiloniella* sp. EL199

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodospirillales*, f.: *Kiloniellaceae*, g.: *Kiloniella*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, cream, convex, smooth, with entire margin, 1–2 mm in diameter

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics:

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral (wild)

Host scientific name: *Eunicella labiata*

Location: Faro, Algarve Portugal

Latitude and longitude: 36.979778 N, 7.989111 W

Collection depth: 18 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461371

Accession number (other genes): []

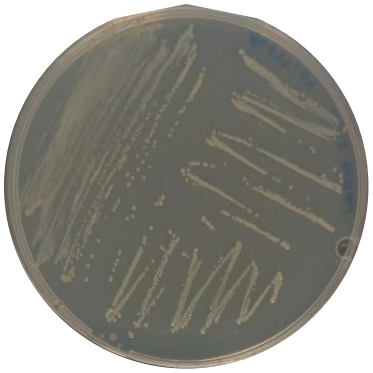
Accession number (Genome GenBank assembly): GCA_900313065.1

Publicly available articles: doi: 10.3390/md16120485, doi: 10.1093/femsec/fix143, doi: 10.3390/md21010034

Strain ID: *Roseobacteraceae* bacterium MEE026
Alternative designations: *Roseobacteraceae* bacterium Alg231_04

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: (-), s.: (-).

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, creamy white, convex, with entire margin, 1–2 mm in diameter

Cell morphometrics: rods, 1.6 µm wide, 5 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 09/05/2014

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge (wild)

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve, Portugal

Latitude and longitude: 36.9798 N, 7.9889 W

Collection depth: 20 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): KY363614

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900143635.1

Publicly available articles: doi: 10.1038/s41598-019-38737-x, doi: 10.3390/md21010034

Strain ID: *Tateyamaria* sp. MEE027
Alternative designations: *Tateyamaria* sp. Alg231_49

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Tateyamaria*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, beige, convex, with entire margin, 1–3 mm in diameter

Cell morphometrics: coccoid to short rods

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 09/05/2014

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge (wild)

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve, Portugal

Latitude and longitude: 36.9798 N, 7.9889 W

Collection depth: 20 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): KY363630

Accession number (other genes): []

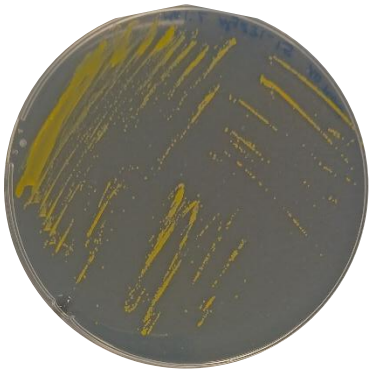
Accession number (Genome GenBank assembly): GCA_900143535.1

Publicly available articles: doi: 10.1038/s41598-019-38737-x, doi: 10.3390/md21010034

Strain ID: *Sphingorhabdus* sp. MEE028
Alternative designations: *Sphingorhabdus* sp. Alg231_15

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Sphingomonadales*, f.: *Sphingomonadaceae*, g.: *Sphingorhabdus*, s.: (-).

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25 °C

Colony morphology: circular, yellow-orange, convex, smooth, with entire margin, 1 mm in diameter

Cell morphometrics: rods, 0.5 µm wide, 1.1 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 09/05/2014

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge (wild)

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve, Portugal

Latitude and longitude: 36.9798 N, 7.9889 W

Collection depth: 20 m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): KY363618

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900149705.1

Publicly available articles: doi: 10.1038/s41598-019-38737-x, doi: 10.3390/md21010034

Strain ID: *Ruegeria* sp.MEE029

Alternative designations: *Ruegeria* sp. Alg231_54

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Ruegeria*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Punctiform form, flat elevation, entire margins, smooth surface and opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 09/05/2014

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: Spongia *officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): KY363633

Accession number (other genes):

Accession number (Genome GenBank assembly): GCA_900143525.1

Publicly available articles: doi: 10.1093/femsec/fiy074, doi: 10.1038/s41598-019-38737-x

Strain ID: *Pseudovibrio* sp. MEE030

Alternative designations: *Pseudovibrio* sp. Alg231_02

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Pseudovibrio*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, flat elevation, entire margins, concentric surface and mucoid

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 09/05/2014

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): KY363613

Accession number (other genes): -

Accession number (Genome GenBank assembly): GCA_900143565.1

Publicly available articles: doi: 10.1093/femsec/fiy074

Strain ID: *Loktanella* sp. MEE031

Alternative designations: *Loktanella* sp. Alg231_35

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Loktanella*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Punctiform form, flat elevation, entire margins, smooth surface and translucent

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 09/05/2014

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): KY363625

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900143545.1

Publicly available articles: doi: 10.1093/femsec/fiy074

Strain ID: *Roseibium* sp. MEE032

Alternative designations: *Roseibium* sp. Alg231_36

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Roseibium*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 09/05/2014

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): KY363626

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900143555.1

Publicly available articles: doi: 10.1093/femsec/fiy074

Strain ID: *Erythrobacter* sp. MEE033

Alternative designations: *Erythrobacter* sp. Alg231_14

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Sphingomonadales*, f.: *Erythrobacteraceae*, g.: *Erythrobacter*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular form, convex elevation, entire margins, smooth surface, opaque, orange water insoluble pigment

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 09/05/2014

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): KY363617

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900149685.1

Publicly available articles: doi: 10.1093/femsec/fiy074

Strain ID: *Anderseniella* sp. MEE034

Alternative designations: *Anderseniella* sp. Alg231_50

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Hyphomicrobiales*, f.: *Parvibaculaceae*, g.: *Anderseniella*, s.: (-).

Photograph:

[]

[]

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: circular shape, flat elevation, entire margins, smooth surface, opaque, orange water insoluble pigment

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 09/05/2014

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge (wild)

Host scientific name: Spongia officinalis

Location: Faro, Algarve

Latitude and longitude: Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): KY363631

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900149695.1

Publicly available articles: doi: 10.1093/femsec/fiy074

Strain ID: *Sphingorhabdus* sp. MEE036

Alternative designations: *Sphingorhabdus* sp. Alg239-R122

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Sphingomonadales*, f.: *Sphingomonadaceae*, g.: *Sphingorhabdus*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Punctiform shape, flat elevation, entire margins, smooth surface, opaque, yellow water-insoluble pigment

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818486

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900537065.1

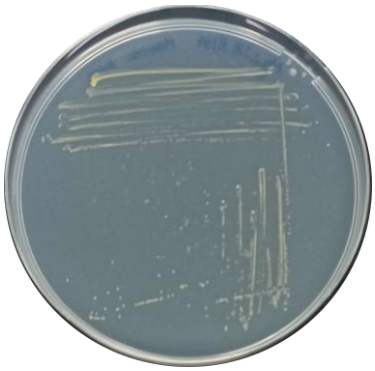
Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Dietzia* sp. MEE037

Alternative designations: *Dietzia* sp. Alg238-R159

Taxonomy: p.: *Actinomycetota*, c.: *Actinomycetes*, o.: *Mycobacteriales*, f.: *Dietziaceae*, g.: *Dietzia*, s.: (-).

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Punctiform shape, flat elevation, entire margins, smooth surface, opaque, water insoluble yellow pigment

Cell morphometrics: -

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818481

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900537145.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Shimia* sp. MEE039

Alternative designations: *Shimia* sp. Alg238-R152

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Shimia*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, translucent

Cell morphometrics: -

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818484

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900537125.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Arthrobacter* sp. MEE041

Alternative designations: *Arthrobacter* sp. Alg241-R88

Taxonomy: p.: *Actinomycetota*, c.: *Actinomycetes*, o.: *Micrococcales*, f.: *Micrococcaceae*, g.: *Arthrobacter*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: -

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818479

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900537115.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Ruegeria mediterranea* MEE042

Alternative designations: *Ruegeria mediterranea* Alg239-R130

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Ruegeria*, s.: *R. mediterranea*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, mucoid

Cell morphometrics: -

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818487

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900537105.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Tropicibacter* sp. MEE043

Alternative designations: *Tropicibacter* sp. Alg240-R139

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Tropicibacter*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Punctiform shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: -

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818488

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900537075.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Cytophagales* bacterium MEE044

Alternative designations: *Cytophagales* bacterium Alg240-R148

Taxonomy: p.: *Bacteroidota*, c.: *Cytophagia*, o.: *Cytophagales*, f.: (-), g.: (-), s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, convex elevation, entire margins, smooth surface, water-insoluble orange pigment

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818480

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900537185.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Marinicauda* sp. MEE046

Alternative designations: *Marinicauda* sp. Alg238-R41

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Caulobacterales*, f.: *Maricaulaceae*, g.: *Marinicauda*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Punctiform shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: -

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818493

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_947331485.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Shimia* sp. MEE048

Alternative designations: *Shimia* sp. Alg240-R146

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Rhodobacterales*, f.: *Roseobacteraceae*, g.: *Shimia*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Punctiform shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818499

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_947331465.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Erythrobacteraceae* bacterium MEE049

Alternative designations: *Erythrobacteraceae* bacterium Alg239-R51

Taxonomy: p.: *Pseudomonadota*, c.: *Alphaproteobacteria*, o.: *Sphingomonadales*, f.: *Erythrobacteraceae*, g.: (-), s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Punctiform shape, flat elevation, entire margins, smooth surface, opaque, water-insoluble orange pigment

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818502

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_947331495.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Photobacterium* sp. MEE052

Alternative designations: *Photobacterium* sp. Alg240-V54

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Photobacterium*, s.: (-).

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Punctiform shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818469

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900537155.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Enterovibrio norvegicus* MEE054

Alternative designations: *Enterovibrio norvegicus* Alg239-V16

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Vibrionales*, f.: *Vibrionaceae*, g.: *Enterovibrio*, s.: *E. norvegicus*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Irregular shape, umbotunate elevation, entire margins, smooth surface, translucent

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 30/04/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Marine sponge

Host scientific name: *Spongia officinalis*

Location: Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 20m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Elham Karimi

Identifier(s): Rodrigo Costa, Elham Karimi

Accession number (16S rRNA gene): MH818467

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_900537165.1

Publicly available articles: doi: 10.1101/2020.03.20.000216

Strain ID: *Roseibium album* MEE057

Alternative designations: *Roseibium album* EL13

Taxonomy: p.: *Pseudomonadota*, c.: Alphaproteobacteria, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Roseibium*, s.: *R. album*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella labiata*

Location: Pedra da Greta, Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 18m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461364

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_015751945.1

Publicly available articles: doi: 10.1093/femsec/fix143, doi: 10.1128/mra.00320-21

Strain ID: *Roseibium album* MEE059

Alternative designations: *Roseibium album* EL132

Taxonomy: p.: *Pseudomonadota*, c.: Alphaproteobacteria, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Roseibium*, s.: *R. album*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella labiata*

Location: Pedra da Greta, Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 18m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461364

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_015752105.1

Publicly available articles: doi: 10.1093/femsec/fix143, doi: 10.1128/mra.00320-21

Strain ID: *Roseibium album* MEE060

Alternative designations: *Roseibium album* EL142

Taxonomy: p.: *Pseudomonadota*, c.: Alphaproteobacteria, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Roseibium*, s.: *R. album*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics:

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella labiata*

Location: Pedra da Greta, Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 18m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461364

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_015752355.1

Publicly available articles: doi: 10.1093/femsec/fix143, doi: 10.1128/mra.00320-21

Strain ID: *Roseibium album* MEE061

Alternative designations: *Roseibium album* EL159

Taxonomy: p.: *Pseudomonadota*, c.: Alphaproteobacteria, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Roseibium*, s.: *R. album*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella labiata*

Location: Pedra da Greta, Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 18m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461364

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_015752425.1

Publicly available articles: doi: 10.1093/femsec/fix143, doi: 10.1128/mra.00320-21

Strain ID: *Roseibium album* MEE062

Alternative designations: *Roseibium album* EL162

Taxonomy: p.: *Pseudomonadota*, c.: Alphaproteobacteria, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Roseibium*, s.: *R. album*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella labiata*

Location: Pedra da Greta, Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 18m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461364

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_015752365.1

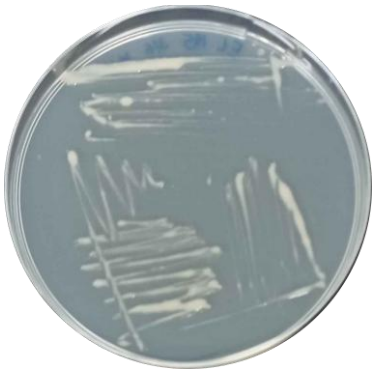
Publicly available articles: doi: 10.1093/femsec/fix143, doi: 10.1128/mra.00320-21

Strain ID: *Roseibium album* MEE063

Alternative designations: *Roseibium album* EL195

Taxonomy: p.: *Pseudomonadota*, c.: Alphaproteobacteria, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Roseibium*, s.: *R. album*.

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella labiata*

Location: Pedra da Greta, Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 18m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461364

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_015752055.1

Publicly available articles: doi: 10.1093/femsec/fix143, doi: 10.1128/mra.00320-21

Strain ID: *Roseibium album* MEE064

Alternative designations: *Roseibium album* EL208

Taxonomy: p.: *Pseudomonadota*, c.: Alphaproteobacteria, o.: *Hyphomicrobiales*, f.: *Stappiaceae*, g.: *Roseibium*, s.: *R. album*.

Photograph:

Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 25°C

Colony morphology: Circular shape, flat elevation, entire margins, smooth surface, opaque

Cell morphometrics: []

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 02/03/2015

Biome or Habitat: North-East Atlantic Ocean

Environment: Aquatic, marine

Host common name: Octocoral

Host scientific name: *Eunicella labiata*

Location: Pedra da Greta, Faro, Algarve

Latitude and longitude: 36.9798 N 7.9889 W

Collection depth: 18m

External information and credits

Collector(s): Jorge Gonçalves, Carlos Afonso

Isolator(s): Tina Keller-Costa

Identifier(s): Tina Keller-Costa

Accession number (16S rRNA gene): MF461364

Accession number (other genes): []

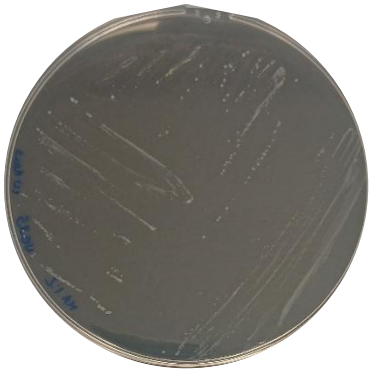
Accession number (Genome GenBank assembly): GCA_015752025.1

Publicly available articles: doi: 10.1093/femsec/fix143, doi: 10.1128/mra.00320-21

Strain ID: *Endozoicomonas lisbonensis* MEE068
Alternative designations: *Endozoicomonas lisbonensis* NE35

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Oceanospirillales*, f.: *Endozoicomonadaceae*, g.: *Endozoicomonas*, s.: *E. lisbonensis*.

Photograph:



Petri dish growth.

Characteristics

Growth medium: Marine Broth

Isolation temperature: 21 °C

Colony morphology: Circular, smooth, and convex with entire margins, 0.5–1.5 mm in diameter

Cell morphometrics: rods, 0.5–1.0 µm wide, 2.0–3.5 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 05/04/2022

Biome or Habitat: Live coral aquarium

Environment: Aquatic, marine

Host common name: Octocoral (captive)

Host scientific name: *Litophyton* sp.

Location: Oceanário de Lisboa

Latitude and longitude: 38.7636 N, 9.09365 W

Collection depth: –

External information and credits

Collector(s): Elsa Santos, Matilde Marques, Tina Keller-Costa

Isolator(s): Matilde Marques

Identifier(s): Matilde Marques, Daniela da Silva, Tina Keller-Costa

Accession number (16S rRNA gene): PP815988

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_040549005.1

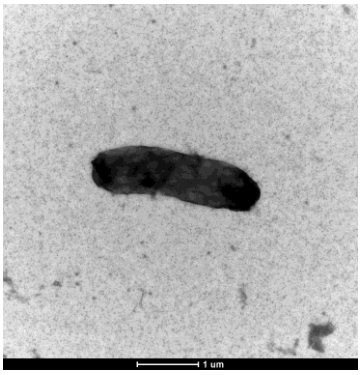
Publicly available articles: doi: 10.1128/mra.00833-24, doi: 10.1099/ijsem.0.006696

Strain ID: *Endozoicomonas lisbonensis* MEE069
Alternative designations: *Endozoicomonas lisbonensis* NE40

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Oceanospirillales*, f.: *Endozoicomonadaceae*, g.: *Endozoicomonas*, s.: *E. lisbonensis*.

Photograph:

Petri dish growth.



5000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 21 °C

Colony morphology: Circular, smooth, and convex with entire margins, 0.5–1.5 mm in diameter

Cell morphometrics: rods, 0.5–1.0 µm wide, 1.5–3.0 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 05/04/2022

Biome or Habitat: Live coral aquarium

Environment: Aquatic, marine

Host common name: Octocoral (captive)

Host scientific name: *Litophyton* sp.

Location: Oceanário de Lisboa

Latitude and longitude: 38.7636 N, 9.09365 W

Collection depth: –

External information and credits

Collector(s): Elsa Santos, Matilde Marques, Tina Keller-Costa

Isolator(s): Matilde Marques

Identifier(s): Matilde Marques, Daniela da Silva, Tina Keller-Costa

Accession number (16S rRNA gene): PP815993

Accession number (other genes): []

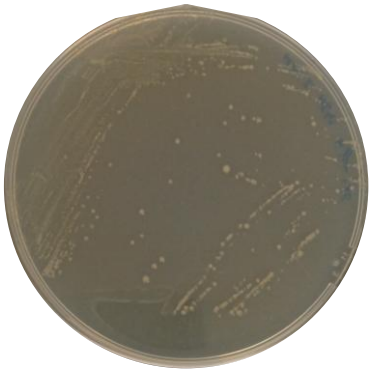
Accession number (Genome GenBank assembly): GCA_040549045.1

Publicly available articles: doi: 10.1128/mra.00833-24, doi: 10.1099/ijsem.0.006696

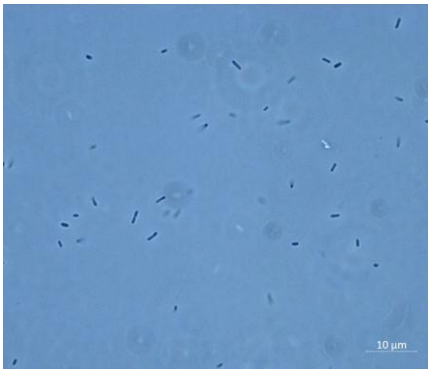
Strain ID: *Endozoicomonas lisbonensis* MEE070
Alternative designations: *Endozoicomonas lisbonensis* NE41

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Oceanospirillales*, f.: *Endozoicomonadaceae*, g.: *Endozoicomonas*, s.: *E. lisbonensis*.

Photograph:



Petri dish growth.



1000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 21 °C

Colony morphology: Circular, smooth, and convex with entire margins, 0.5–1.0 mm in diameter

Cell morphometrics: rods, 0.5–1.0 µm wide, 1.5–2.0 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 05/04/2022

Biome or Habitat: Live coral aquarium

Environment: Aquatic, marine

Host common name: Octocoral (captive)

Host scientific name: *Litophyton* sp.

Location: Oceanário de Lisboa

Latitude and longitude: 38.7636 N, 9.09365 W

Collection depth: –

External information and credits

Collector(s): Elsa Santos, Matilde Marques, Tina Keller-Costa

Isolator(s): Matilde Marques

Identifier(s): Matilde Marques, Daniela da Silva, Tina Keller-Costa

Accession number (16S rRNA gene): PP815994

Accession number (other genes): []

Accession number (Genome GenBank assembly): GCA_040549035.1

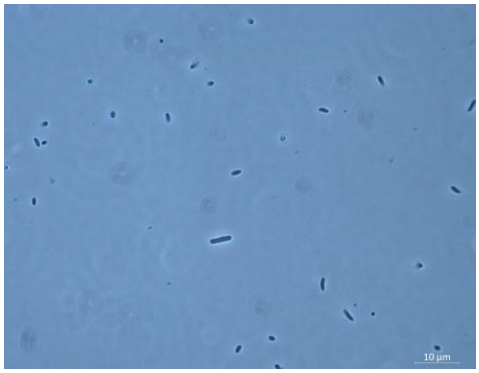
Publicly available articles: doi: 10.1128/mra.00833-24, doi: 10.1099/ijsem.0.006696

Strain ID: *Endozoicomonas lisbonensis* MEE071
Alternative designations: *Endozoicomonas lisbonensis* NE43

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Oceanospirillales*, f.: *Endozoicomonadaceae*, g.: *Endozoicomonas*, s.: *E. lisbonensis*.

Photograph:

Petri dish growth.



1000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 21 °C

Colony morphology: Circular, smooth, and convex with entire margins, 0.5–1.0 mm in diameter

Cell morphometrics: rods, 0.5–1.0 µm wide, 1.5–2.5 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 05/04/2022

Biome or Habitat: Live coral aquarium

Environment: Aquatic, marine

Host common name: Octocoral (captive)

Host scientific name: *Litophyton* sp.

Location: Oceanário de Lisboa

Latitude and longitude: 38.7636 N, 9.09365 W

Collection depth: –

External information and credits

Collector(s): Elsa Santos, Matilde Marques, Tina Keller-Costa

Isolator(s): Matilde Marques

Identifier(s): Matilde Marques, Daniela da Silva, Tina Keller-Costa

Accession number (16S rRNA gene): PP815996

Accession number (other genes): []

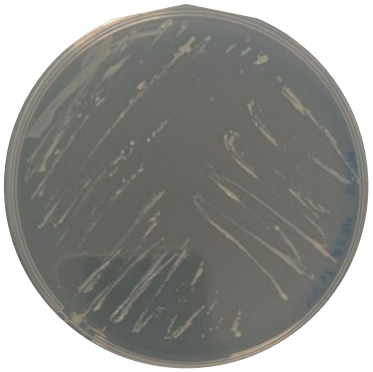
Accession number (Genome GenBank assembly): GCA_040549065.1

Publicly available articles: doi: 10.1128/mra.00833-24, doi: 10.1099/ijsem.0.006696

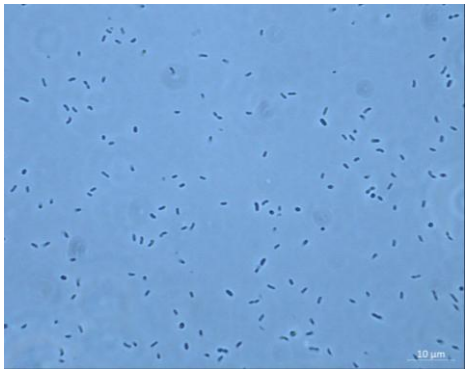
Strain ID: *Endozoicomonas* sp. MEE072
Alternative designations: *Endozoicomonas* sp. NE30

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Oceanospirillales*, f.: *Endozoicomonadaceae*, g.: *Endozoicomonas*, s.: (-).

Photograph:



Petri dish growth.



1000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 21 °C

Colony morphology: Circular, smooth, and convex with entire margins, 0.5–2.5 mm in diameter

Cell morphometrics: rods, 0.5–1.0 µm wide, 1.4–2.5 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 05/04/2022

Biome or Habitat: Live coral aquarium

Environment: Aquatic, marine

Host common name: Octocoral (captive)

Host scientific name: *Litophyton* sp.

Location: Oceanário de Lisboa

Latitude and longitude: 38.7636 N, 9.09365 W

Collection depth: –

External information and credits

Collector(s): Elsa Santos, Matilde Marques, Tina Keller-Costa

Isolator(s): Matilde Marques

Identifier(s): Matilde Marques, Daniela da Silva, Tina Keller-Costa

Publicly available articles: []

Accession number (16S rRNA gene): PP815984

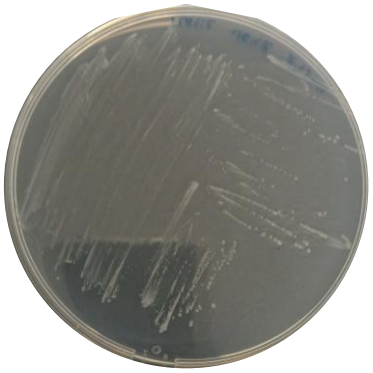
Accession number (other genes): []

Accession number (Genome GenBank assembly): IMG 8088629584

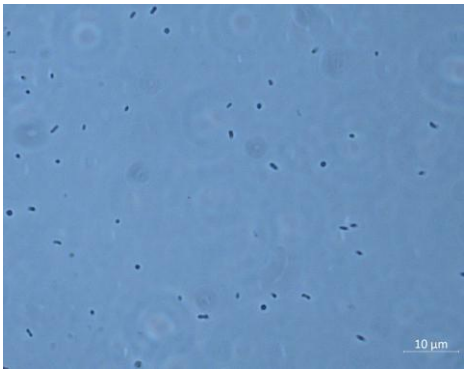
Strain ID: *Endozoicomonas* sp. MEE073
Alternative designations: *Endozoicomonas* sp. NE42

Taxonomy: p.: *Pseudomonadota*, c.: *Gammaproteobacteria*, o.: *Oceanospirillales*, f.: *Endozoicomonadaceae*, g.: *Endozoicomonas*, s.: (-).

Photograph:



Petri dish growth.



1000x

Characteristics

Growth medium: Marine Broth

Isolation temperature: 21 °C

Colony morphology: Circular, smooth, and convex with entire margins, 0.5–1.0 mm in diameter

Cell morphometrics: rods, 0.5–1.0 µm wide, 1.5–2.0 µm long

Preservation type: Cryopreservation (Glycerol stock)

Ecophysiological traits/characteristics: []

Biotechnological interest: []

Original sample collection

Collection date: 05/04/2022

Biome or Habitat: Live coral aquarium

Environment: Aquatic, marine

Host common name: Octocoral (captive)

Host scientific name: *Litophyton* sp.

Location: Oceanário de Lisboa

Latitude and longitude: 38.7636 N, 9.09365 W

Collection depth: –

External information and credits

Collector(s): Elsa Santos, Matilde Marques, Tina Keller-Costa

Isolator(s): Matilde Marques

Identifier(s): Matilde Marques, Daniela da Silva, Tina Keller-Costa

Accession number (16S rRNA gene): PP815995

Accession number (other genes): []

Accession number (Genome GenBank assembly): []

Publicly available articles: []

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