



Strain identifier

BacDive ID: 132 **DOI:** 10.13145/bacdiv132.20190402.4
Type strain: yes **Designation:** Jbg-1
Culture col. no.: DSM 18101, ATCC BAA 1329

Sections

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- [Isolation, sampling and environmental information](#)
- [Application and interaction](#)
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Name and taxonomic classification

Ref.: 7394	Domain	Bacteria
Ref.: 7394	Phylum	Acidobacteria
Ref.: 7394	Class	Acidobacteria
Ref.: 7394	Order	Acidobacteriales
Ref.: 7394	Family	Acidobacteriaceae
Ref.: 7394	Genus	Edaphobacter
Ref.: 7394	Species	Edaphobacter modestus
Ref.: 7394	Full Scientific Name	Edaphobacter modestus Koch et al. 2008
Ref.: 7394	Designation:	Jbg-1
Ref.: 7394	Type strain:	yes

Prokaryotic Nomenclature Up-to-date (PNU)

Ref.: 20215	Domain	Bacteria
Ref.: 20215	Phylum	Acidobacteria
Ref.: 20215	Class	Acidobacteria
Ref.: 20215	Literature reference	Int. J. Syst. Evol. Microbiol. 52:12*
Ref.: 20215	Family	Acidobacteriaceae
Ref.: 20215	Literature reference	Int. J. Syst. Evol. Microbiol. 62:1
Ref.: 20215	Genus	Edaphobacter



Ref.: 20215	Taxonomical status	gen. nov. (VP)
Ref.: 20215	Literature reference	Int. J. Syst. Evol. Microbiol. 58:1114*
Ref.: 20215	Species	Edaphobacter modestus
Ref.: 20215	Taxonomical status	sp. nov. (VP)
Ref.: 20215	Literature reference	Int. J. Syst. Evol. Microbiol. 58:1114*
Ref.: 20215	Full Scientific Name	Edaphobacter modestus Koch et al. 2008

Morphology and physiology

Ref.: 21411	Cell length	1.4 µm
Ref.: 21411	Cell width	0.6 µm
Ref.: 7394	Incubation period	3-7 days
Ref.: 21411	Colony shape	circular, highly cohesive
Ref.: 21411	Colony color	beige

Enzymes	Enzyme	Enzyme activity	EC number
Ref.: 7394	catalase	+	1.11.1.6

Ref.: 7394

API 20NE

API ID	6986	6985	6276
NO3	-	-	-
TRP	-	-	-
GLU_Ferm	-	-	-
ADH (Arg)	-	-	-
URE	-	-	-
ESC	+	+	+
GEL	-	-	-
PNPG	+	+	+
GLU_Assim	-	-	+/-
ARA	-	-	-
MNE	-	-	-
MAN	-	-	-
NAG	-	-	-
MAL	-	-	-
GNT	-	-	-
CAP	-	-	-

ADI	-	-	-
MLT	-	-	-
CIT	-	-	-
PAC	-	-	-
OX	n.d.	n.d.	-

Ref.: 21411

API zym

API ID	1048
Control	-
Alkaline phosphatase	+
Esterase (C 4)	-
Esterase Lipase (C 8)	+
Lipase (C 14)	-
Leucine arylamidase	+
Valine arylamidase	+
Cystine arylamidase	+
Trypsin	-
Alpha-chymotrypsin	+
Acid phosphatase	+
Naphthol-AS-BI-phosphohydrolase	+
Alpha-galactosidase	+
Beta-galactosidase	+
Beta-glucoronidase	+
Alpha-glucosidase	+
Beta-glucosidase	+
N-acetyl-beta-glucosaminidase	-
Alpha-mannosidase	-
Alpha-fucosidase	+

Metabolite utilization

Chebi ID	Metabolite	Utilization activity
	(+)-D-Galactose	-
	(+)-D-Glucosamine	+
	(+)-D-Mannose	-
	(+)-D-Xylose	+
	(+)-L-Arabinose	+
	(+)-L-Aspartate	-
	(+)-L-Glutamate	+

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Ref.: 21411		(+)-L-Glutamine	+
Ref.: 21411		(+)-L-Lyxitol	+
Ref.: 21411		(+)-L-Ornithine	-
Ref.: 21411		(+)-L-Rhamnose	+
Ref.: 21411		(2)-D-Fructose	+
Ref.: 21411		(2)-D-Lactose	+
Ref.: 21411		(2)-D-Lyxose	+
Ref.: 21411		Casamino acids (0.01 %, w/v)	+
Ref.: 21411	17057	Cellobiose	-
Ref.: 21411	33198	D-Gluconic acid	-
Ref.: 21411	4178	D-Glucuronic acid	-
Ref.: 21411	16899	D-Mannitol	+
Ref.: 21411	17924	D-Sorbitol	+
Ref.: 21411	17306	Maltose	-
Ref.: 21411	17268	myo-Inositol	+
Ref.: 21411		Peptone (0.01 %, w/v)	+
Ref.: 21411	16634	Raffinose	-
Ref.: 21411	15741	Succinic acid	-
Ref.: 21411	27082	Trehalose	+
Ref.: 21411	17151	Xylitol	+
Ref.: 21411		Yeast extract (0.01 %, w/v)	+

Culture and growth conditions

Ref.: 21411	Culture medium	SSE (pH 6.3) supplemented with 0.0025% yeast extract, 0.1% glucose and trace element solution SL10 (1 ml I-1; Widdel et al., 1983)
Ref.: 7394	Culture medium	HD (1:10 DILUTED) (DSMZ Medium 1124), 25°C
Ref.: 7394	Culture medium growth	yes
Ref.: 7394	Culture medium link	https://www.dsmz.de/microorganisms/medium/pdf/DSMZ_Medium1124.pdf

Temperatures

	Kind of temperature	Temperature
Ref.: 7394	growth	25 °C
Ref.: 21411	maximum	30 °C
Ref.: 21411	minimum	15 °C

Ref.: 21411

optimum

30 °C

Ref.: 7394

Temperature range

mesophilic

Ref.: 21411

Temperature range

mesophilic

Ref.: 21411

Temperature range

psychrophilic

Ref.: 21411

Temperature range

mesophilic

pH

Ref.: 21411

Kind of pH
pH

Ref.: 21411

maximum

7

Ref.: 21411

minimum

4.5

optimum

5.5

Isolation, sampling and environmental information

Ref.: 7394

Sample type/isolated from

alpine rendzina (mollisols: rendolls; pH 6.3) located at an altitude of 1400 m on Jochberg

Ref.: 7394

Geographic location (country and/or sea, region)

Bavaria, near Kochel,

Ref.: 7394

Country

Germany

Ref.: 7394

Continent

Europe

Ref.: 21411

Sample type/isolated from

Soil sample Mollisol (rendolls) upper 3 cm of Ah horizon, 1400 m above sea level, sample soil temperature -3 Grad Celcius

Ref.: 21411

Sampling date

2002-02-00

Ref.: 21411

Geographic location (country and/or sea, region)

Jochberg close to Kochel Bavaria

Ref.: 21411

Country

Germany

Ref.: 21411

Continent

Europe

Ref.: 21411

Enrichment culture

SSE (Soil Solution equivalent) pH 6.3 10 mM HEPES/NaOH

Ref.: 21411

Enrichment culture composition

SSE (Soil Solution equivalent) pH 6.3 10 mM HEPES/NaOH Polymer Mixture 0,1%(w/v) each Chitin. Pektin, soluble starch, Cellul + 10 microM each : cyclic AMP (cAMP), N-(oxohexanoyl)-DL-homoserine lactone (OHHL) and N-(butyryl)-DL-homoserine lactone (BHL)ose, Xylan, curdlan

Ref.: 21411

Enrichment culture temperature

15 °C

Isolation sources categories
Cat1
Cat2
Cat3

#Climate

#Cold

#Alpine

#Environmental	#Terrestrial	#Soil
#Condition	#Psychrophilic (<10°C)	-

Application and interaction

Ref.: 7394	Biosafety level	1 Risk group (German classification)
Ref.: 21411	Biosafety level	1

Molecular biology

Ref.: 7394	GC-content	55.8 mol%
Ref.: 21411	GC-content	55.8 mol%

	Sequence database	Sequence accession description	Sequence accession number	Sequence length(bp)	Associated NCBI tax ID
Ref.: 7394	GenBank Direct submission	Edaphobacter modestus strain Jbg-1 16S ribosomal RNA gene, partial sequence	DQ528760	1438	388466

Strain availability

Ref.: 7394	Culture collection no.	DSM 18101, ATCC BAA 1329
Ref.: 7394	Strain history	<- J. Overmann, LMU, München; Jbg-1 <- J. Koch

Associated Passport(s) in StrainInfo

Ref.: 20218	822625 - http://www.straininfo.net/strains/822625
Ref.: 20218	822624 - http://www.straininfo.net/strains/822624

References

Ref.: 7394	Leibniz Institut DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH; Curators of the DSMZ; DSM 18101
Ref.: 20215	D.Gleim, M.Kracht, N.Weiss et. al.: Prokaryotic Nomenclature Up-to-date - compilation of all names of Bacteria and Archaea, validly published according to the Bacteriological Code since 1. Jan. 1980, and validly published nomenclatural changes since.
Ref.: 20218	Verslyppe, B., De Smet, W., De Baets, B., De Vos, P., Dawyndt P. StrainInfo introduces electronic passports for microorganisms.. Syst Appl Microbiol. 37: 42-50 2014 (10.1016/j.syapm.2013.11.002, 24321274)
Ref.: 21411	Koch I.H. , Gich F. , Dunfield P. F. , Overmann J. Edaphobacter modestus gen. nov., sp. nov., and Edaphobacter aggregans sp. nov., acidobacteria isolated from alpine and forest soils. Syst Appl Microbiol. 58: 1114-1122 2008 (10.1099/ijs.0.65303-0, 18450699)

* These References are textmined

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