

Strain identifier

BacDive ID:	11122	DOI:	10.13145/bacdive11122.20190402.4
Type strain:	yes	Designation:	Gsoil 616
Culture col. no.:	DSM 18660, KCTC 19187		

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Name and taxonomic classification

Ref.: 7643	Domain	Bacteria
Ref.: 7643	Phylum	Actinobacteria
Ref.: 7643	Class	Actinobacteria
Ref.: 7643	Order	Actinomycetales
Ref.: 7643	Family	Nocardioidaceae
Ref.: 7643	Genus	Nocardioides
Ref.: 7643	Species	Nocardioides panacihumi
Ref.: 7643	Full Scientific Name	Nocardioides panacihumi An et al. 2007
Ref.: 7643	Designation:	Gsoil 616
Ref.: 7643	Type strain:	yes

Prokaryotic Nomenclature Up-to-date (PNU)

Ref.: 20215	Domain	Bacteria
Ref.: 20215	Phylum	Actinobacteria
Ref.: 20215	Class	Actinobacteria
Ref.: 20215	Literature reference	Int. J. Syst. Bacteriol. 47:483*
Ref.: 20215	Family	Nocardioidaceae
Ref.: 20215	Genus	Nocardioides
Ref.: 20215	Taxonomical status	genus (AL)



Ref.: 20215	Literature reference	Int. J. Syst. Bacteriol. 30:225
Ref.: 20215	Species	Nocardioides panacihumi
Ref.: 20215	Taxonomical status	sp. nov. (VP)
Ref.: 20215	Literature reference	Int. J. Syst. Evol. Microbiol. 57:2143*
Ref.: 20215	Full Scientific Name	Nocardioides panacihumi An et al. 2007

Morphology and physiology

Ref.: 32010	Gram stain	positive
Ref.: 32010	Cell length	0.7-1.2 µm
Ref.: 32010	Cell width	0.3-0.5 µm
Ref.: 32010	Cell shape	rod-shaped
Ref.: 32010	Motility	no

Enzymes	Enzyme	Enzyme activity	EC number
Ref.: 32010	acid phosphatase	+	3.1.3.2
Ref.: 32010	alkaline phosphatase	+	3.1.3.1

Halophily	Salt	Tested relation	Salt conc.
Ref.: 32010	NaCl	growth	0-1 %
Ref.: 32010	NaCl	optimum	0.5 %

Ref.: 19769

API coryne

API ID	309
NIT	-
PYZ	-
PYRA	-
PAL	-
betaGUR	-
betaGAL	-
alphaGLU	+
betaNAG	-
ESC	+
URE	-
GEL	-
Control	n.d.
GLU	-
RIB	-

XYL	-
MAN	-
MAL	-
LAC	-
SAC	-
GLYG	-
CAT	n.d.

Ref.: 19769

API zym

API ID	593
Control	n.d.
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	Kind of utilization tested
16193	3-Hydroxybenzoate	+	carbon source
37054	3-Hydroxybutyrate	+	carbon source
30763	4-Hydroxybenzoic acid	+	carbon source
15366	Acetic acid	+	carbon source
16449	Alanine	+	carbon source

Ref.: 32010

Ref.: 32010

Ref.: 32010

Ref.: 32010

Ref.: 32010

Ref.: 32010	4853	Esculin	+	hydrolysis
Ref.: 32010	24266	Gluconic acid	+	carbon source
Ref.: 32010	28087	Glycogen	+	carbon source
Ref.: 32010	17306	Maltose	+	carbon source
Ref.: 32010	17632	Nitrate	+	reduction
Ref.: 32010	18401	Phenylacetate	+	carbon source
Ref.: 32010	26271	Proline	+	carbon source
Ref.: 32010	30768	Propionic acid	+	carbon source
Ref.: 32010	26546	Rhamnose	+	carbon source
Ref.: 32010	17814	Salicin	+	carbon source
Ref.: 32010	17418	Valeric acid	+	carbon source

Ref.: 7643	Murein short key	A41.01
Ref.: 7643	Murein types	A3gamma LL-Dpm-Gly
Ref.: 32010	Oxygen tolerance	aerobe
Ref.: 32010	Ability of spore formation	no

Culture and growth conditions

Ref.: 7643	Culture medium	R2A MEDIUM (DSMZ Medium 830), 28°C
Ref.: 7643	Culture medium growth	yes
Ref.: 7643	Culture medium link	https://www.dsmz.de/microorganisms/medium/pdf/DSMZ_Medium830.pdf
Ref.: 37831	Culture medium	MEDIUM 566- Reasoner?s 2A 2A agar for Flavobacterium micromati
Ref.: 37831	Culture medium growth	yes
Ref.: 37831	Culture medium composition	Distilled water make up to (1000.000 ml);R2A agar (18.200 g)

	Temperatures	
Ref.: 7643		
Ref.: 19769		
Ref.: 32010		
Ref.: 32010		
Ref.: 37831		

Kind of temperature	Temperature
growth	28 °C
optimum	28 °C
growth	15-30 °C
optimum	30 °C
growth	30 °C

Ref.: 7643	Temperature range	mesophilic
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Ref.: 19769 **Temperature range** mesophilic
 Ref.: 32010 **Temperature range** mesophilic
 Ref.: 37831 **Temperature range** mesophilic

Ref.: 32010 Ref.: 32010	pH	Kind of pH	pH
		growth	5.0-8.0
		optimum	7

Isolation, sampling and environmental information

Ref.: 7643 **Sample type/isolated from** soil, ginseng field
 Ref.: 7643 **Geographic location (country and/or sea, region)** Pocheon province
 Ref.: 7643 **Country** Republic of Korea
 Ref.: 7643 **Continent** Asia

Isolation sources categories	Cat1	Cat2	Cat3
	#Engineered	#Agriculture	#Field
	#Environmental	#Terrestrial	#Soil
	#Host	#Plants	#Herbaceous plants (Grass,Crops)

Application and interaction

Ref.: 7643 **Biosafety level** 1 Risk group (German classification)
 Ref.: 19769 **Biosafety level** 1 Risk group (German classification)

Molecular biology

Ref.: 7643 **GC-content** 73 mol%
 Ref.: 32010 **GC-content** 73 mol%

	Sequence database	Sequence accession description	Sequence accession number	Sequence length(bp)	Associated NCBI tax ID
Ref.: 7643	DDBJ EMBL Direct submission		AB271053		

Strain availability

- Ref.: 7643 **Culture collection no.** DSM 18660, KCTC 19187
- Ref.: 7643 **Strain history** <- S.-T. Lee <- W.-T. Im; Gsoil 616

Associated Passport(s) in StrainInfo

- Ref.: 20218 721080 - <http://www.straininfo.net/strains/721080>
- Ref.: 20218 721081 - <http://www.straininfo.net/strains/721081>

References

- Ref.: 7643 Leibniz Institut DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH; Curators of the DSMZ; DSM 18660
- Ref.: 19769 Wink, J.: Compendium of Actinobacteria. HZI-Helmholtz-Centre for Infection Research, Braunschweig.
- 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.: 32010 Barberan A, Caceres Velazquez H, Jones S, Fierer N. Hiding in Plain Sight: Mining Bacterial Species Records for Phenotypic Trait Information. mSphere 2: None-None 2017 (10.1128/mSphere.00237-17, None) - **originally annotated from #28264**
- Ref.: 28264 IJSEM 2143 2007 (10.1099/ijs.0.64806-0)
- Ref.: 37831 None; Curators of the CIP; None

* **These References are textmined**

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