

## Strain identifier

**BacDive ID:** 5715      **DOI:** 10.13145/bacdive5715.20191129.4.1  
**Type strain:** yes  
**Culture col. no.:** DSM 23925, KCTC 22015, KMM 6177, LMG 25220

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## Name and taxonomic classification

<a href="#">Ref.: 17308</a>	<b>Domain</b>	Bacteria
<a href="#">Ref.: 17308</a>	<b>Phylum</b>	Bacteroidetes
<a href="#">Ref.: 17308</a>	<b>Class</b>	Flavobacteriia
<a href="#">Ref.: 17308</a>	<b>Order</b>	Flavobacteriales
<a href="#">Ref.: 17308</a>	<b>Family</b>	Flavobacteriaceae
<a href="#">Ref.: 17308</a>	<b>Genus</b>	Bizionia
<a href="#">Ref.: 17308</a>	<b>Species</b>	Bizionia echini
<a href="#">Ref.: 17308</a>	<b>Full Scientific Name</b>	Bizionia echini Nedashkovskaya et al. 2010
<a href="#">Ref.: 17308</a>	<b>Designation:</b>	None
<a href="#">Ref.: 17308</a>	<b>Type strain:</b>	yes

### **Prokaryotic Nomenclature Up-to-date (PNU)**

<a href="#">Ref.: 20215</a>	<b>Domain</b>	Bacteria
<a href="#">Ref.: 20215</a>	<b>Phylum</b>	Bacteroidetes
<a href="#">Ref.: 20215</a>	<b>Class</b>	Flavobacteriia
<a href="#">Ref.: 20215</a>	Literature reference	Int. J. Syst. Evol. Microbiol. 62:1017
<a href="#">Ref.: 20215</a>	<b>Family</b>	Flavobacteriaceae
<a href="#">Ref.: 20215</a>	Literature reference	Int. J. Syst. Bacteriol. 42:327
<a href="#">Ref.: 20215</a>	<b>Genus</b>	Bizionia

Ref.: 20215	Taxonomical status	gen. nov. (VP)
Ref.: 20215	Literature reference	Int. J. Syst. Evol. Microbiol. 55:375*
Ref.: 20215	<b>Species</b>	Bizionia echini
Ref.: 20215	Taxonomical status	sp. nov. (VP)
Ref.: 20215	Literature reference	Int. J. Syst. Evol. Microbiol. 60:928*
Ref.: 20215	<b>Full Scientific Name</b>	Bizionia echini Nedashkovskaya et al. 2010

### Morphology and physiology

Ref.: 29440	<b>Gram stain</b>	negative
Ref.: 29440	<b>Cell length</b>	1.4-3.5 µm
Ref.: 29440	<b>Cell width</b>	0.4-0.5 µm
Ref.: 29440	<b>Cell shape</b>	rod-shaped
Ref.: 29440	<b>Motility</b>	yes
Ref.: 29440	<b>Flagellum arrangement</b>	gliding

Enzymes	Enzyme	Enzyme activity	EC number
Ref.: 29440	alkaline phosphatase	+	3.1.3.1
Ref.: 29440	catalase	+	1.11.1.6
Ref.: 29440	cytochrome oxidase	+	1.9.3.1

Halophily	Salt	Tested relation	Salt conc.
Ref.: 29440	NaCl	growth	01-08 %
Ref.: 29440	NaCl	optimum	02-03 %

Metabolite production	Chebi ID	Metabolite	Production
Ref.: 29440	16136	Hydrogen sulfide	yes

Metabolite utilization	Chebi ID	Metabolite	Utilization activity	Kind of utilization tested
Ref.: 29440	30769	Citric acid	+	carbon source
Ref.: 29440	17234	Glucose	+	carbon source
Ref.: 29440	37684	Mannose	+	carbon source

Ref.: 29440	<b>Oxygen tolerance</b>	aerobe
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### Culture and growth conditions

Ref.: 17308	<b>Culture medium</b>	BACTO MARINE BROTH (DIFCO 2216) (DSMZ Medium 514), 28°C
Ref.: 17308	<b>Culture medium growth</b>	yes
Ref.: 17308	<b>Culture medium link</b>	<a href="https://www.dsmz.de/microorganisms/medium/pdf/DSMZ_Medium514.pdf">https://www.dsmz.de/microorganisms/medium/pdf/DSMZ_Medium514.pdf</a>

Ref.: 17308 Ref.: 29440 Ref.: 29440	<b>Temperatures</b>	<b>Kind of temperature</b>	<b>Temperature</b>
		growth	28 °C
		growth	04-39 °C
		optimum	30-37 °C

Ref.: 17308	<b>Temperature range</b>	mesophilic
Ref.: 29440	<b>Temperature range</b>	mesophilic

### Isolation, sampling and environmental information

Ref.: 17308	<b>Sample type/isolated from</b>	sea urchin Strongylocentrotus intermedius
Ref.: 17308	<b>Host species</b>	Strongylocentrotus intermedius
Ref.: 17308	<b>Geographic location (country and/or sea, region)</b>	Sea of Japan, Gulf of Peter the Great, Troitsa Bay
Ref.: 17308	<b>Country</b>	Russia
Ref.: 17308	<b>Continent</b>	Asia

<b>Isolation sources categories</b>	<b>Cat1</b>	<b>Cat2</b>	<b>Cat3</b>
	#Host	#Invertebrates (Other)	#Echinodermata

### Application and interaction

Ref.: 17308	<b>Biosafety level</b>	1 Risk group (German classification)
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### Molecular biology

Ref.: 17308	<b>GC-content</b>	34.4 mol% thermal denaturation, midpoint method (Tm)
Ref.: 29440	<b>GC-content</b>	34.4 mol%

	Sequence database	Sequence accession description	Sequence accession number	Sequence length(bp)	Associated NCBI tax ID

Ref.: 17308	16S rRNA gene, Marker Gene (GenBank Direct submission)	Bizionia echini 16S ribosomal RNA gene, partial sequence	FJ716799	1478	649333
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### Strain availability

Ref.: 17308      **Culture collection no.**      DSM 23925, KCTC 22015, KMM 6177, LMG 25220

Ref.: 17308      **Strain history**      <- KCTC <- O. I. Nedashkovskaya, Pacific Inst. Bioorg. Chem., RAS, Vladivostok, Russia

### **Associated Passport(s) in StrainInfo**

Ref.: 20218      853824 - <http://www.straininfo.net/strains/853824>

Ref.: 20218      620410 - <http://www.straininfo.net/strains/620410>

Ref.: 20218      841638 - <http://www.straininfo.net/strains/841638>

### References

Ref.: 17308      Leibniz Institut DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH; Curators of the DSMZ; DSM 23925

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.: 29440      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 #25846**

Ref.: 25846      IJSEM 928 2010 (10.1099/ijms.0.013193-0)

**\* These References are textmined**

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