

Strain		DSM 42138
Genus		<i>Streptomyces</i>
Species		<i>bryophytorum</i>
Status		
Risk group		L1
Type strain		NEAU-HZ10, CGMCC 4.7151
Genbank accession number		16S rRNA gene: KF923804
Reference		
Author		Li, C., Jin, P., Liu, C., Ma, Z., Zhao, J., Li, J., Wang, X., Xiang, W.
Title		<i>Streptomyces bryophytorum</i> sp. nov., an endophytic actinomycete isolated from moss (Bryophyta)
Journal		Antonie van Leeuwenhoek
Volume		109 (9)
Page		1209-1215
Year		2016
Morphology		
Agar	ISP 2 - growth/G	Good
Agar	ISP 2 - colony colour/R	8003 Clay brown, 8004 Copper brown
Agar	ISP 2 - aerial mycelium/A	None
Agar	ISP 2 - soluble pigment/S	8003 Clay brown
Agar	ISP 3 - G	Good
Agar	ISP 3 - R	8007 Fawn brown
Agar	ISP 3 - A	None
Agar	ISP 3 - S	8003 Clay brown
Agar	ISP 4 - G	Sparse
Agar	ISP 4 - R	8003 Clay brown
Agar	ISP 4 - A	None
Agar	ISP 4 - S	None
Agar	ISP 5 - G	Good
Agar	ISP 5 - R	8002 Signal brown
Agar	ISP 5 - A	Sparse, 7038 Agate grey
Agar	ISP 5 - S	8003 Clay brown
Agar	ISP 6 - G	Sparse
Agar	ISP 6 - R	1002 Sand yellow
Agar	ISP 6 - A	None
Agar	ISP 6 - S	None
Agar	ISP 7 - G	Good
Agar	ISP 7 - R	8017 Chocolate brown
Agar	ISP 7 - A	None
Agar	ISP 7 - S	8007 Fawn brown

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Agar	suter with tyrosine - G	Good
Agar	suter with tyrosine - R	8011 Nut brown
Agar	suter with tyrosine - A	None
Agar	suter with tyrosine - S	None
Agar	suter without tyrosine - G	Sparse
Agar	suter without tyrosine - R	8003 Clay brown, 8001 Ochre brown
Agar	suter without tyrosine - A	None
Agar	suter without tyrosine - S	None
	Sporechains/Sporangia	
Physiology		
Melanin		-
pH	range	
pH	optimum	
temperature	range	
temperature	optimum	
sodium chloride tolerance		7,5%
lysozyme tolerance		
use of carbohydrates	glucose	+
use of carbohydrates	arabinose	+
use of carbohydrates	sucrose	++
use of carbohydrates	xylose	+
use of carbohydrates	inositol	-
use of carbohydrates	mannose	-
use of carbohydrates	fructose	-
use of carbohydrates	rhamnose	++
use of carbohydrates	raffinose	+
use of carbohydrates	cellulose	-
Api zym	Phosphatase alcaline	5
Api zym	Esterase (C4)	3
Api zym	Esterase Lipase (C8)	3
Api zym	Lipase (C14)	0
Api zym	Leucin arylamidase	4
Api zym	Valine arylamidase	1
Api zym	Cystine arylamidase	0
Api zym	Trypsin	0
Api zym	Chymotrypsin	0
Api zym	Phosphatase acid	5
Api zym	Naphtol-AS-BI-phosphohydrolase	5
Api zym	alpha galactosidase	4
Api zym	beta galactosidase	5
Api zym	beta glucuronidase	0
Api zym	alpha glucosidase	4
Api zym	beta glucosidase	3
Api zym	N-acetyl-beta-glucoseamidase	5

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Api zym	alpha mannosidase	4
Api zym	alpha fucosidase	0
Api coryne	nitrate reduction	-
Api coryne	Pyrazinamidase	-
Api coryne	Pyrrolidonyl arylamidase	-
Api coryne	Alkaline phosphatase	+
Api coryne	beta glucuronidase	-
Api coryne	beta galactosidase	+
Api coryne	alpha glucosidase	-
Api coryne	N-acetyl -beta glucoseamidase	+
Api coryne	Esculin (beta glucosidase)	-
Api coryne	Urease	-
Api coryne	Gelatine(hydrolysis)	+
Api coryne	Glucose fermentation	-
Api coryne	Ribose fermentation	-
Api coryne	Xylose fermentation	-
Api coryne	Mannitol fermentation	-
Api coryne	Maltose fermentation	-
Api coryne	Lactose fermentation	-
Api coryne	Sucrose fermentation	-
Api coryne	Glycogen fermentation	-
Metabolites		
Antimicrobial	Staphylococcus aureus	
Antimicrobial	Escherichia coli	
Antimicrobial	Micrococcus luteus	
Antimicrobial	Pseudomonas aeruginosa	
Antimicrobial	Streptomyces murinus	
Antimicrobial	Bacillus subtilis	
Antimicrobial	Candida albicans	
Antimicrobial	Saccharomyces cerevisiae	
Antimicrobial	Aspergillus niger	

APIcoryne



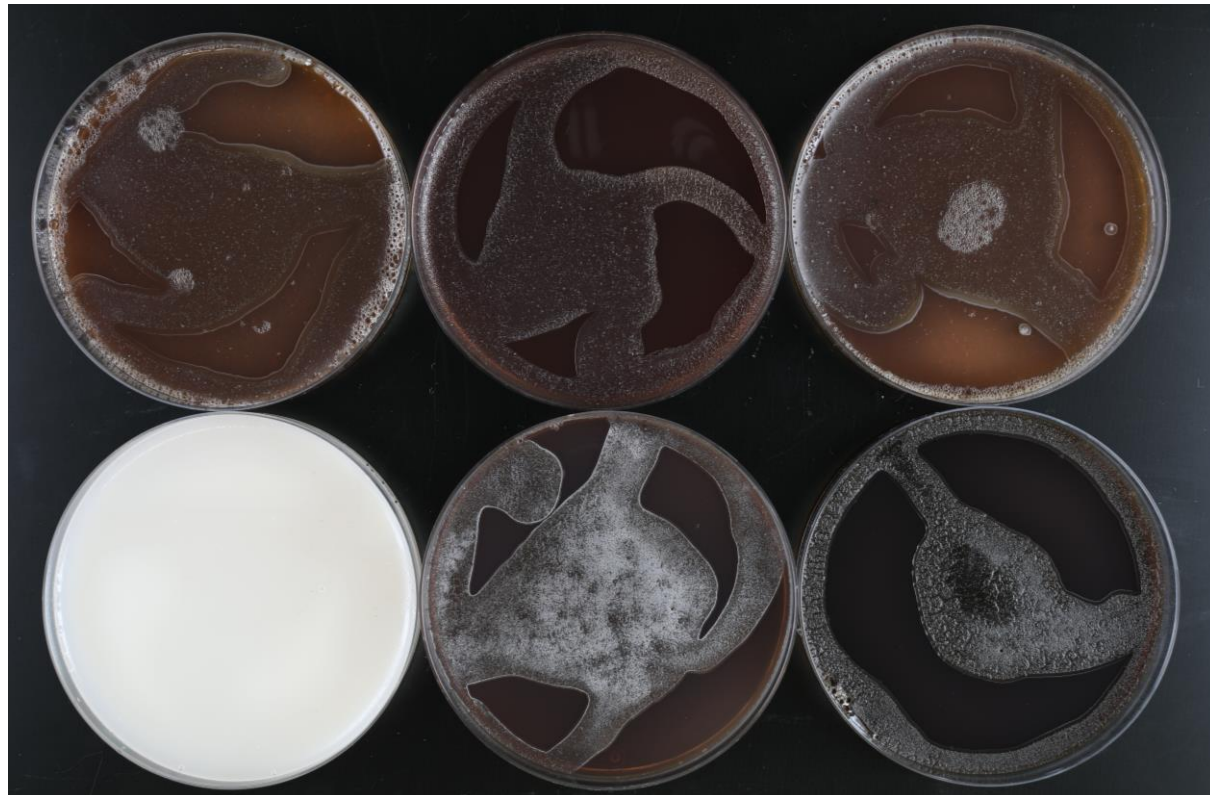
Abbildung 1: Apicoryne-Teststreifen mit Keim DSM.

APIzym

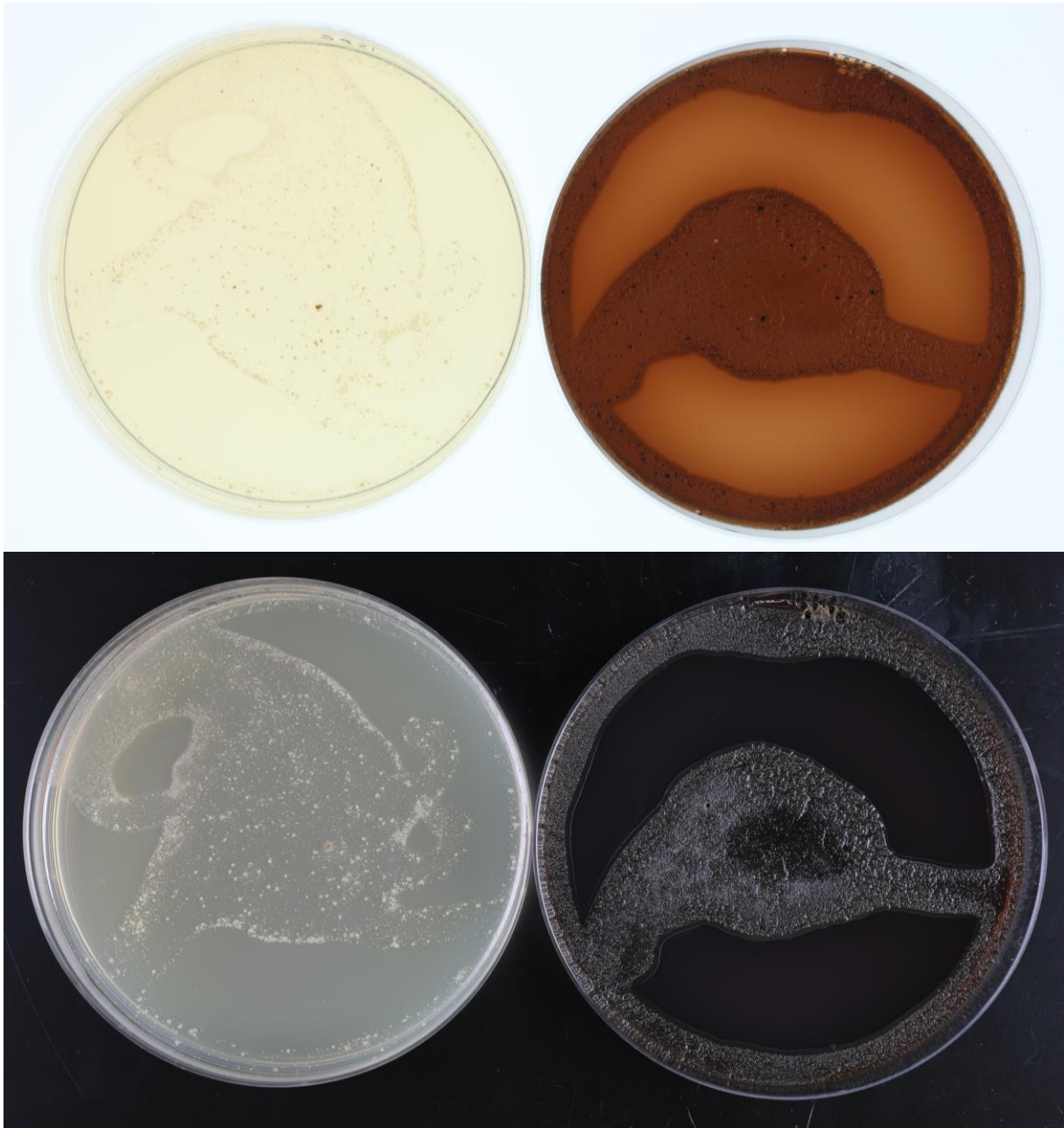


Abbildung 2: Apizym-Teststreifen mit Keim DSM.

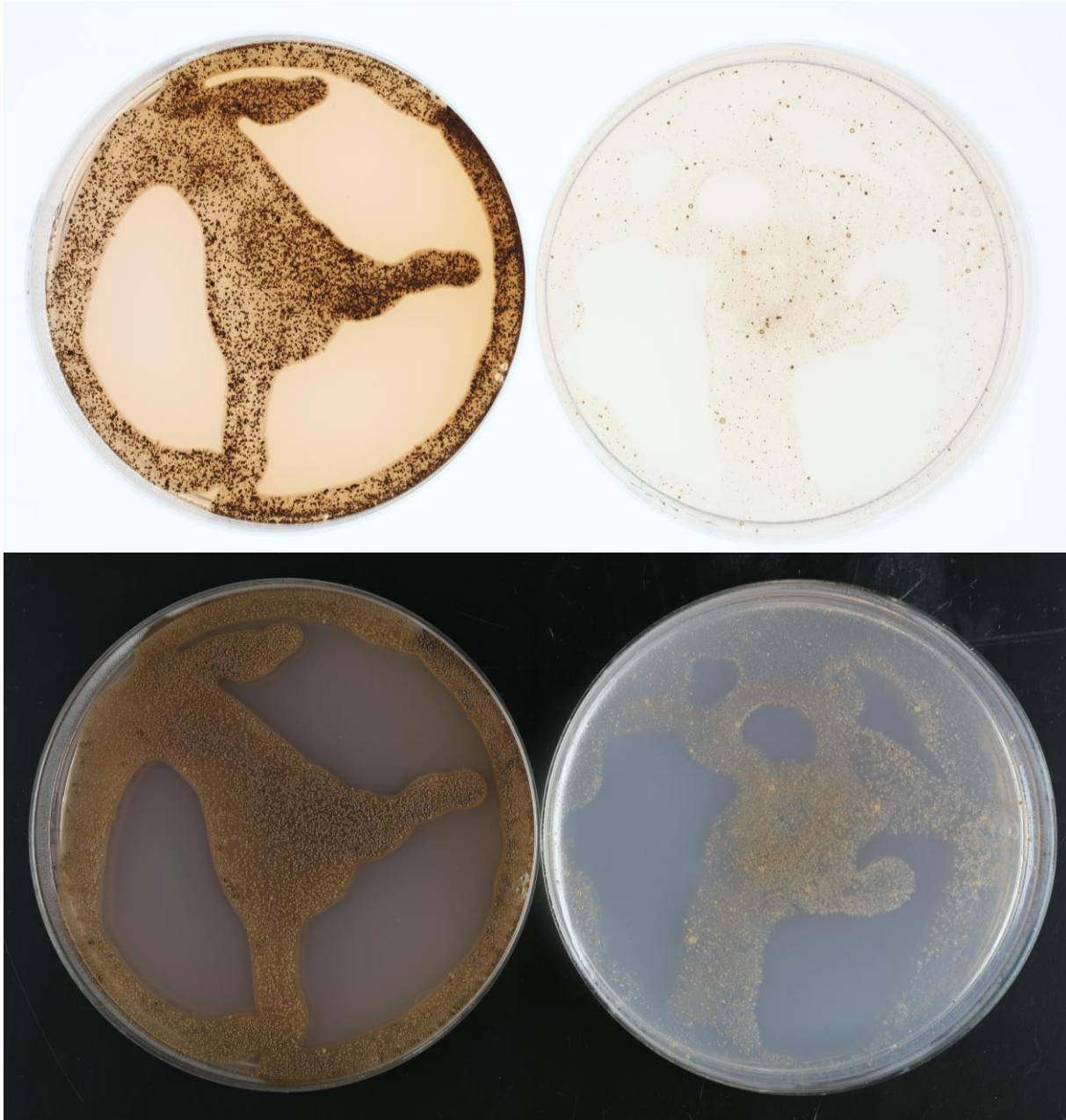
Plates (ISP3, ISP2, ISP3, ISP4, ISP5, ISP7)



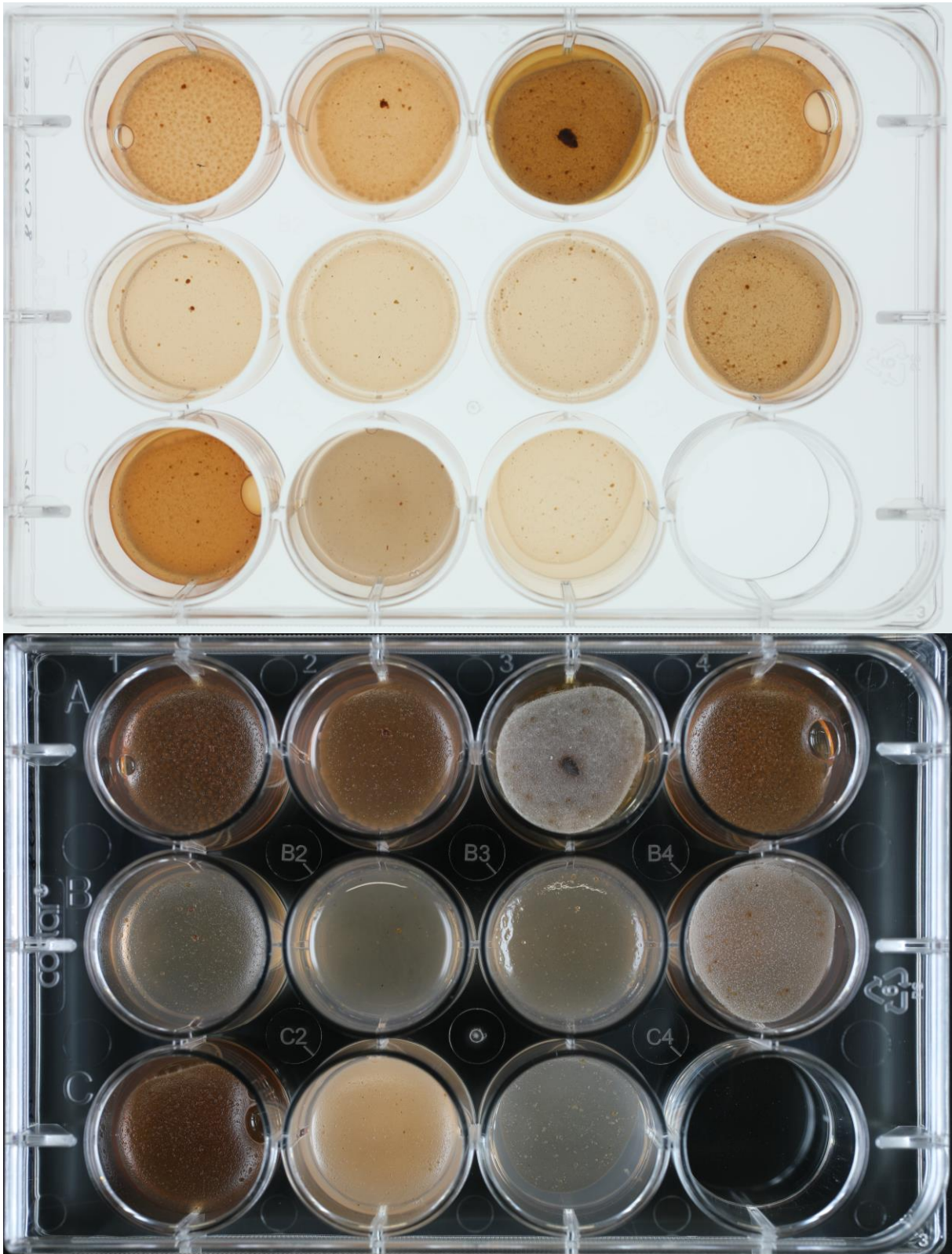
(ISP6, ISP7)



(SSM+T, SSM-T)



Carbon utilization test (from top left to bottom right: glucose, arabinose, sucrose, xylose, inositol, mannose, fructose, rhamnose, raffinose, cellulose)



Sodium chloride tolerance test (from top left to bottom right: 0%, 2,5%, 5%, 7,5%, 10%)

