

Compendium of Actinobacteria from Dr. Joachim M. Wink
University of Braunschweig

Strain		DSM 40105
Genus		<i>Streptomyces</i>
Species		<i>abikoensis</i>
Status		L1
Risk group		
Type strain		ATCC 23943, CBS 927.68, IFM 1018, IFO 12896, ISP 5105, JCM 4176, JCM 4657, NBRC 12896, RIA 1122
Reference		
Author		Skerman, V. B. D., McGowan, V., Sneath, P. H. A.
Title		Approved Lists of Bacterial Names
Journal		Int.J.Syst.Bacteriol.
Volume		30
Page		225-420
Year		1980
Author		
Title		Validation of the publication of new names and new combinations previously effectively published outside the IJSB. List No. 38
Journal		Int.J.Syst.Bacteriol.
Volume		41
Page		456-457
Year		1991
Author		Hatano, K., Nishii, T., Kasai, H.
Title		Taxonomic re-evaluation of whorl-forming <i>Streptomyces</i> (formerly <i>Streptoverticillium</i>) species by using phenotypes, DNA-DNA hybridization and sequences of <i>gyrB</i> , and proposal of <i>Streptomyces luteireticuli</i> (ex Kato and Arai 1957) corrig., sp. nov., nom. rev.
Journal		Int.J.Syst.Evol.Microbiol.
Volume		53
Page		1519-1529
Year		2003
Morphology		
Agar	ISP 2 - growth/G	Good
Agar	ISP 2 - colony color/R	8003 Clay brown
Agar	ISP 2 - aerial mycelium/A	Good, 7036 Platinum grey, 9001 Cream
Agar	ISP 2 - soluble pigment/S	8001 Ochre brown
Agar	ISP 3 - G	good

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Agar	ISP 3 - R	8011 Nut brown
Agar	ISP 3 - A	Good, 9001 Cream
Agar	ISP 3 - S	1002 Sand yellow, 8017 Chocolate brown
Agar	ISP 4 - G	Good
Agar	ISP 4 - R	8025 Pale brown, 8028 Terra brown
Agar	ISP 4 - A	Sparse, 7004 Signal grey
Agar	ISP 4 - S	1011 Brown beige
Agar	ISP 5 - G	Good
Agar	ISP 5 - R	8007 Fawn brown, 8011 Nut brown
Agar	ISP 5 - A	Good, 7047 Telegrey 4
Agar	ISP 5 - S	8001 Ochre brown
Agar	ISP 6 - G	Sparse
Agar	ISP 6 - R	1001 Beige
Agar	ISP 6 - A	None
Agar	ISP 6 - S	None
Agar	ISP 7 - G	Sparse
Agar	ISP 7 - R	1001 Beige
Agar	ISP 7 - A	Sparse, 9001 Cream
Agar	ISP 7 - S	1014 Ivory
Agar	suter with tyrosine - G	Good
Agar	suter with tyrosine - R	8019 Grey brown
Agar	suter with tyrosine - A	None
Agar	suter with tyrosine - S	9005 Jet black, 8001 Ochre brown, 8003 Clay brown
Agar	suter without tyrosine - G	Good
Agar	suter without tyrosine - R	8019 Grey brown
Agar	suter without tyrosine - A	Sparse, 7003 Moss grey, 9001 Cream
Agar	suter without tyrosine - S	9005 Jet black, 8003 Clay brown
	Sporechains/Sporangia	
Physiology		
Melanin		-
pH	range	
pH	optimum	
temperature	range	
temperature	optimum	
sodium chloride tolerance		5 %
lysozyme tolerance		
use of carbohydrates	glucose	+
use of carbohydrates	arabinose	-
use of carbohydrates	sucrose	-
use of carbohydrates	xylose	-
use of carbohydrates	inositol	+

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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)	2
Api zym	Esterase Lipase (C8)	4
Api zym	Lipase (C14)	5
Api zym	Leucin arylamidase	2
Api zym	Valine arylamidase	3
Api zym	Cystine arylamidase	1
Api zym	Trypsin	1
Api zym	Chymotrypsin	1
Api zym	Phosphatase acid	5
Api zym	Naphtol-AS-BI-phosphohydrolase	4
Api zym	alpha galactosidase	1
Api zym	beta galactosidase	1
Api zym	beta glucuronidase	1
Api zym	alpha glucosidase	3
Api zym	beta glucosidase	1
Api zym	N-acetyl-beta-glucoseamidase	1
Api zym	alpha mannosidase	4
Api zym	alpha fucosidase	1
Api coryne	nitrate reduction	-
Api coryne	Pyraziamidase	-
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



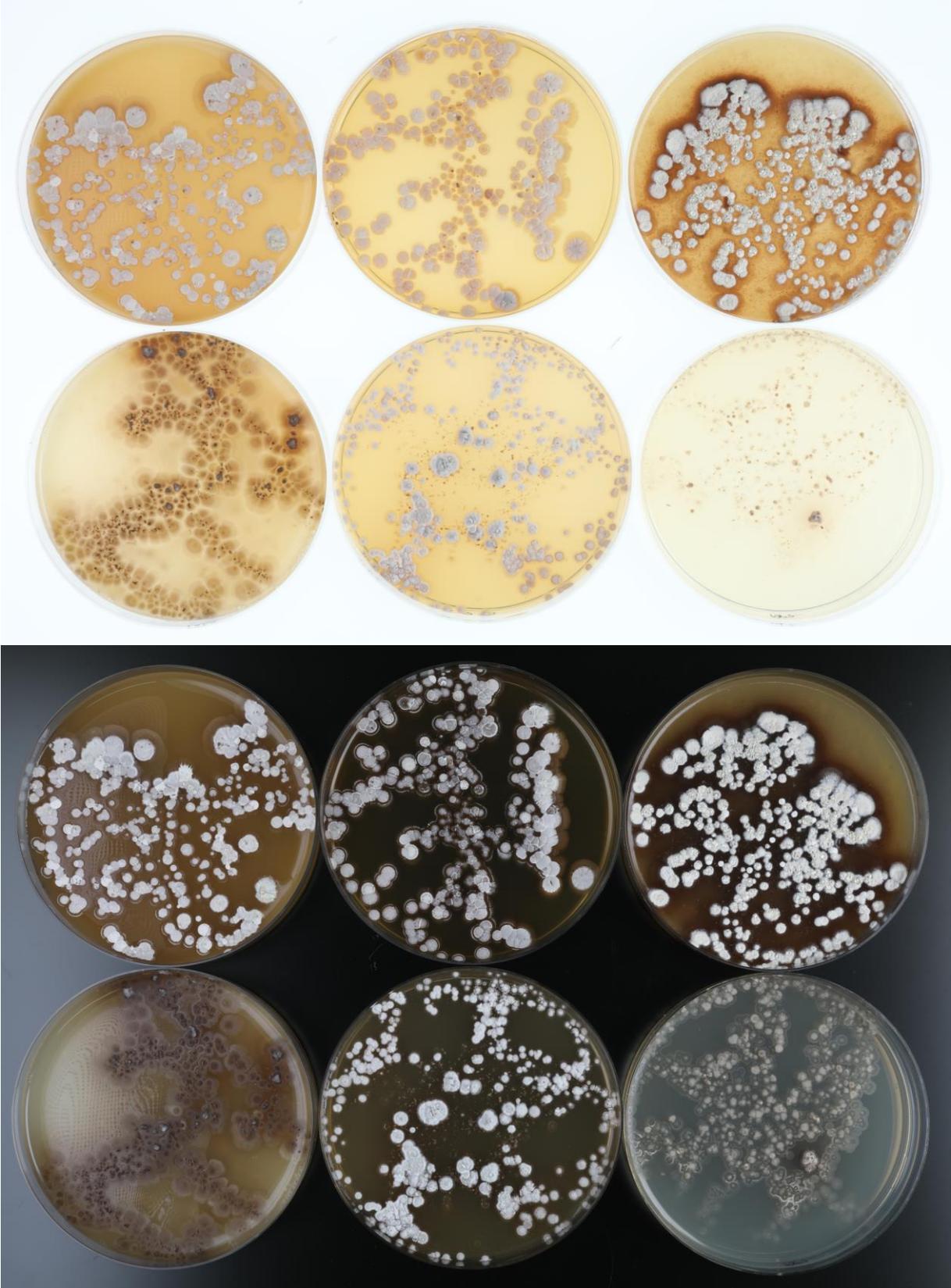
Abbildung 1: Apicoryne-Teststreifen mit Keim DSM.

Apizym



Abbildung 2: Apizym-Teststreifen mit Keim DSM.

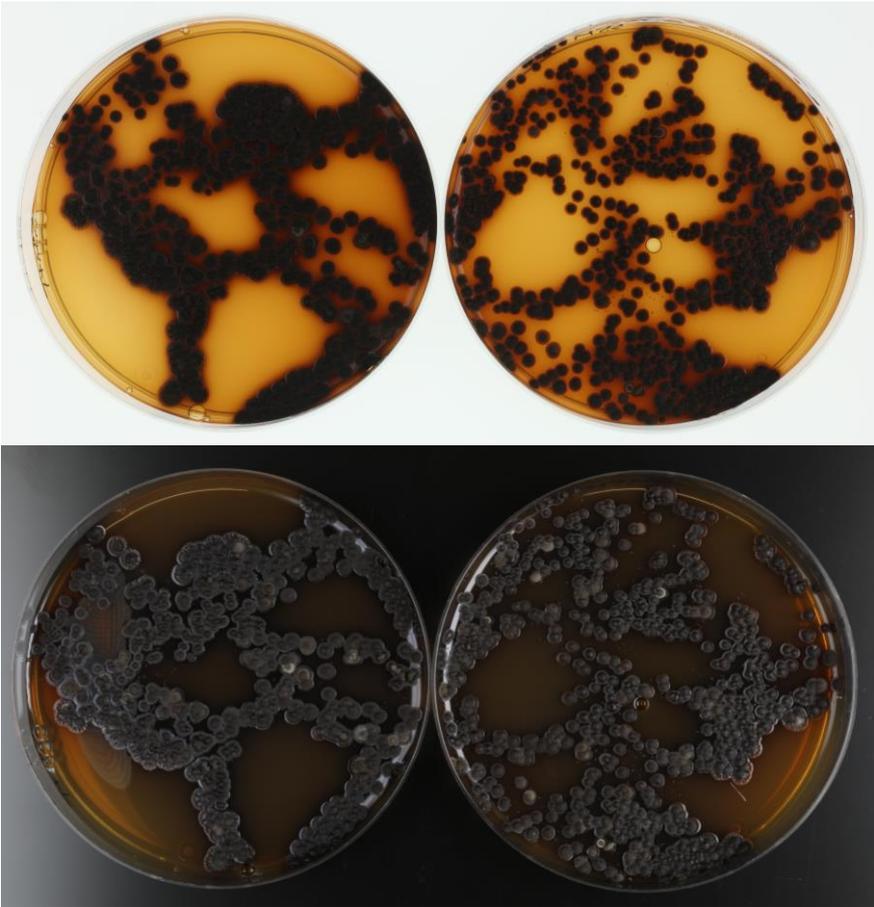
Plates (65, ISP2, ISP3, ISP4, ISP5, ISP7)



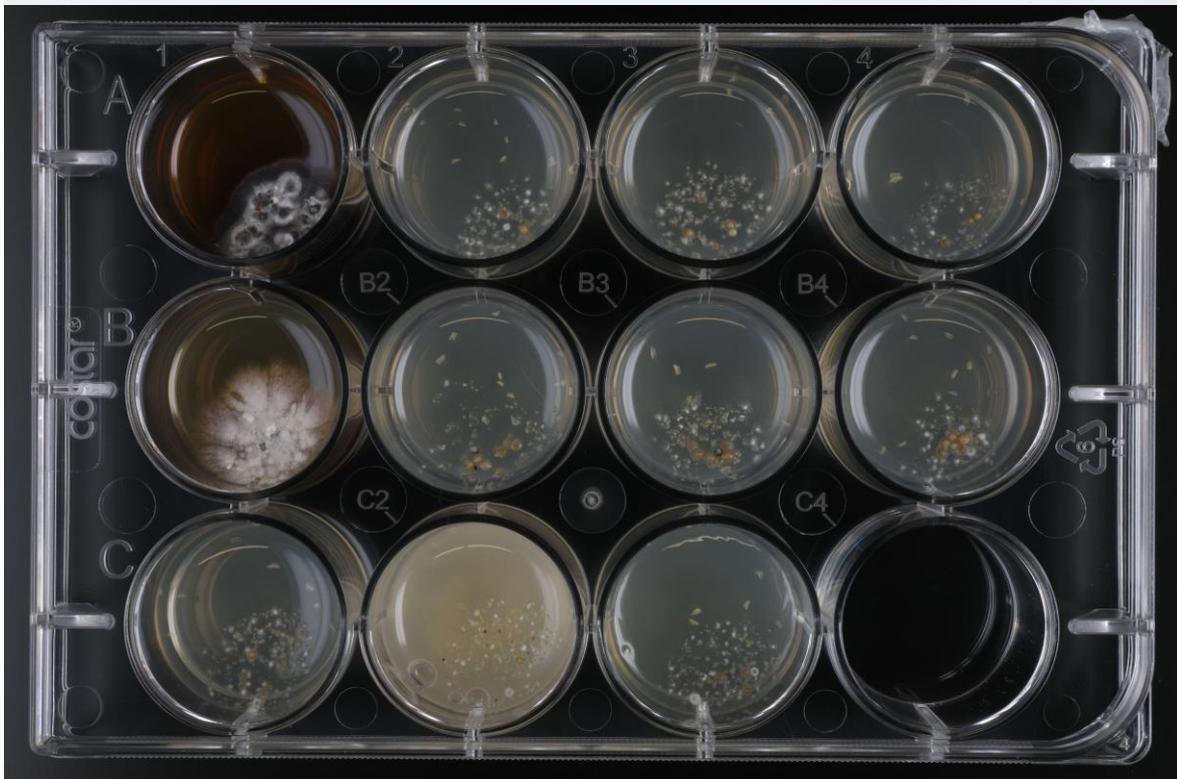
(ISP6, ISP7)



(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%)

