

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

Strain		DSM 45174
Genus		<i>Nocardia</i>
Species		<i>mikamii</i>
Status		
Risk group		L2 (provisional classification by DSMZ)
Type strain		W8061, DSM 45174, JCM 15508
Reference		Int J Syst Evol Microbiol. 60:2275*
Author		Jannat-Khah, D., Kroppenstedt, R. M., Klenk, H. P., Spröer, C., Schumann, P., Lasker, B. A., Steigerwalt, A. G., Hinrikson, H. P., Brown, J. M.
Title		<i>Nocardia mikamii</i> sp. nov., isolated from human pulmonary infections in the USA
Journal		<i>Int J Syst Evol Microbiol</i>
Volume		60 (Pt 10)
Page		2272-2276
Year		2010
Morphology		
Agar	ISP 2 - growth/G	good
Agar	ISP 2 - colony color/R	deep orange (2011)
Agar	ISP 2 - aerial mycelium/A	cream (9001)
Agar	ISP 2 - soluble pigment/S	none
Agar	ISP 3 - G	sparse
Agar	ISP 3 - R	pastel orange (2003)
Agar	ISP 3 - A	pure white (9010)
Agar	ISP 3 - S	none
Agar	ISP 4 - G	sparse
Agar	ISP 4 - R	yellow orange (2000)
Agar	ISP 4 - A	none
Agar	ISP 4 - S	none
Agar	ISP 5 - G	sparse
Agar	ISP 5 - R	pastel yellow (1034)
Agar	ISP 5 - A	pure white (9010)
Agar	ISP 5 - S	none
Agar	ISP 6 - G	sparse
Agar	ISP 6 - R	pastel yellow (1034)
Agar	ISP 6 - A	cream (9001)
Agar	ISP 6 - S	none
Agar	ISP 7 - G	good
Agar	ISP 7 - R	salmon orange (2012)
Agar	ISP 7 - A	pure white (9010)
Agar	ISP 7 - S	beige red (3012)
Agar	suter with tyrosine - G	good

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

Agar	suter with tyrosine - R	daffodil yellow (1007)
Agar	suter with tyrosine - A	light ivory (1015)
Agar	suter with tyrosine - S	none
Agar	suter without tyrosine - G	good
Agar	suter without tyrosine - R	daffodil yellow (1007)
Agar	suter without tyrosine - A	light ivory (1015)
Agar	suter without tyrosine - S	none
	Sporechains/Sporangia	
Physiology		
Melanin		- - - -
pH	range	
pH	optimum	
temperature	range	
temperature	optimume	
sodium chloride tolerance		2,5%
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	2
Api zym	Esterase (C4)	2
Api zym	Esterase Lipase (C8)	3
Api zym	Lipase (C14)	1
Api zym	Leucin arylamidase	4
Api zym	Valine arylamidase	4
Api zym	Cystine arylamidase	1
Api zym	Trypsin	0
Api zym	Chymotrypsin	0
Api zym	Phosphatase acid	4
Api zym	Naphtol-AS-BI-phosphohydrolase	2
Api zym	alpha galactosidase	0
Api zym	beta galactosidase	2
Api zym	beta glucuronidase	0
Api zym	alpha glucosidase	1
Api zym	beta GLUCOSIDASE	4
Api zym	N-acetyl-beta-glucoseamidase	0
Api zym	alpha mannosidase	0

Api zym	alpha fucosidase	0
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 45174.

Apizym



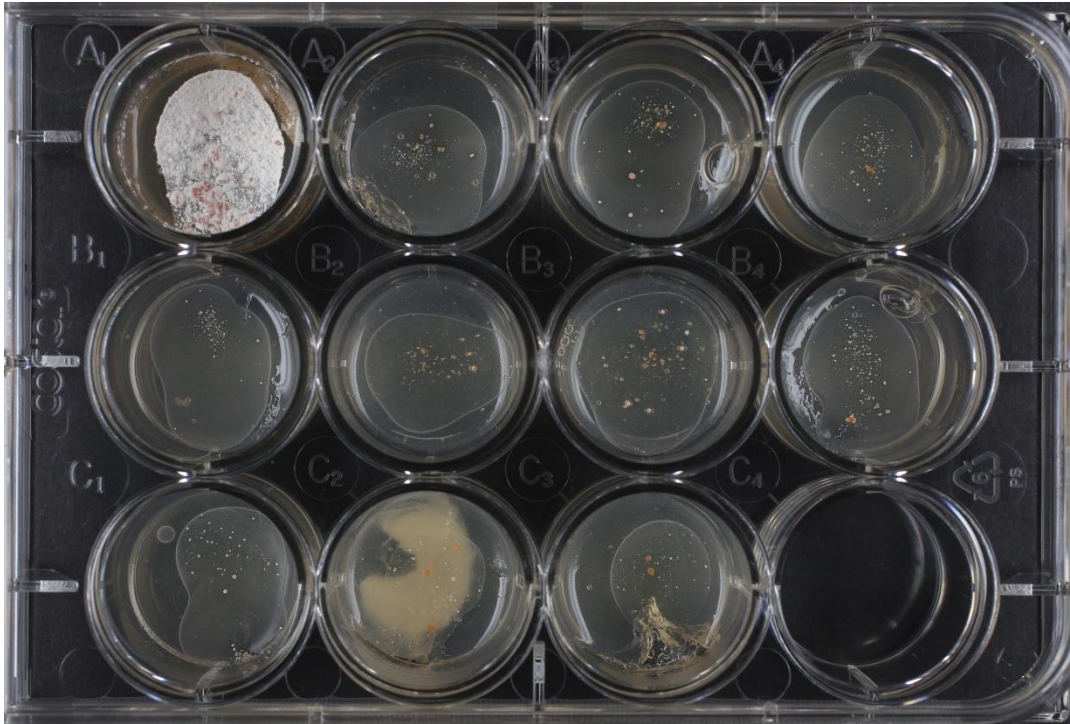
Abbildung 2: Apizym-Teststreifen mit Keim DSM 45174.



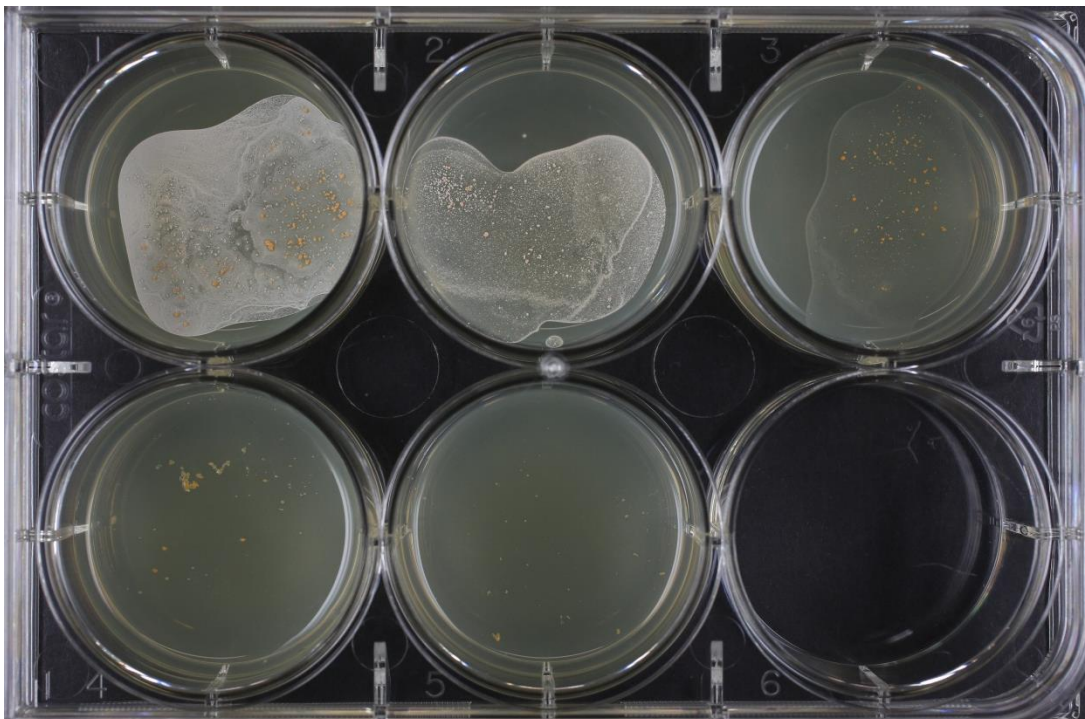
Plates (BHI, ISP2, ISP3, ISP4, ISP5, ISP7)



(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%)