

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

Strain		DSM 45379
Genus		<b><i>Nocardia</i></b>
Species		<b><i>artemisiae</i></b>
Status		
Risk group		1 (provisional classification by DSMZ)
Type strain		YIM 65623, CCTCC AA 209038, DSM 45379
Reference		Int. J. Syst. Evol. Microbiol. 61:2936
Author		Zhao, G. Z., Li, J., Zhu, W. Y., Klenk, H. P., Xu, L. H., Li, W. J.
Title		<i>Nocardia artemisiae</i> sp. nov., an endophytic actinobacterium isolated from a surface-sterilized stem of <i>Artemisia annua</i> L.
Journal		<i>Int J Syst Evol Microbiol</i>
Volume		<b>61</b> ( 12)
Page		2933-2937
Year		2011
Morphology		
Agar	ISP 2 - growth/G	Good
Agar	ISP 2 - colony color/R	Saffron yellow (1017)
Agar	ISP 2 - aerial mycelium/A	Cream (9001)
Agar	ISP 2 - soluble pigment/S	None
Agar	ISP 3 - G	Sparse
Agar	ISP 3 - R	Clay brown (8003)
Agar	ISP 3 - A	None
Agar	ISP 3 - S	None
Agar	ISP 4 - G	Sparse
Agar	ISP 4 - R	Clay brown (8003)
Agar	ISP 4 - A	None
Agar	ISP 4 - S	None
Agar	ISP 5 - G	Good
Agar	ISP 5 - R	Pale brown (8025)
Agar	ISP 5 - A	Cream (9001)
Agar	ISP 5 - S	None
Agar	ISP 6 - G	Sparse
Agar	ISP 6 - R	Brown beige (1011)
Agar	ISP 6 - A	
Agar	ISP 6 - S	None
Agar	ISP 7 - G	Good
Agar	ISP 7 - R	Chocolate brown (8017)
Agar	ISP 7 - A	Pure white (9010)
Agar	ISP 7 - S	Clay brown (8003)
Agar	suter with tyrosine - G	Good
Agar	suter with tyrosine - R	Fawn brown (8007)

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Agar	suter with tyrosine - A	Beige (1001)
Agar	suter with tyrosine - S	Ocher brown (8001)
Agar	suter without tyrosine - G	Good
Agar	suter without tyrosine - R	Brown beige (1011)
Agar	suter without tyrosine - A	Beige (1001)
Agar	suter without tyrosine - S	none
	Sporechains/Sporangia	
Physiology		
Melanin		- + + -
pH	range	
pH	optimum	
temperature	range	
temperature	optimum	
sodium chloride tolerance		2,5 – 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 alkaline	4
Api zym	Esterase (C4)	2
Api zym	Esterase Lipase (C8)	1
Api zym	Lipase (C14)	0
Api zym	Leucin arylamidase	5
Api zym	Valine arylamidase	0
Api zym	Cystine arylamidase	0
Api zym	Trypsin	0
Api zym	Chymotrypsin	0
Api zym	Phosphatase acid	4
Api zym	Naphtol-AS-BI-phosphohydrolase	3
Api zym	alpha galactosidase	0
Api zym	beta galactosidase	2
Api zym	beta glucuronidase	1
Api zym	alpha glucosidase	4
Api zym	beta GLUCOSIDASE	5
Api zym	N-acetyl-beta-glucoseamidase	0
Api zym	alpha mannosidase	0
Api zym	alpha fucosidase	1

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

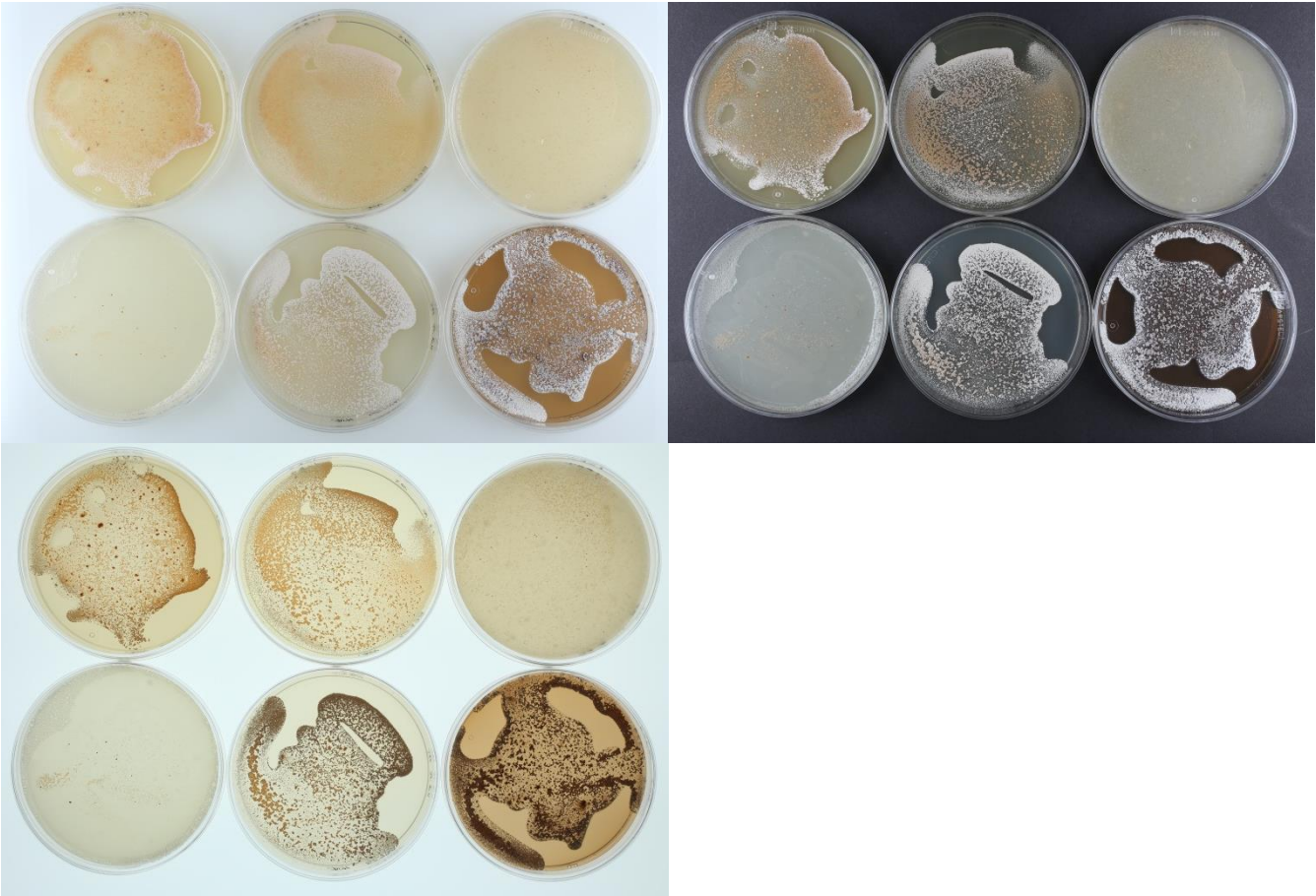


Abbildung 1: Apicoryne-Teststreifen mit Keim DSM 45379.

## Apizym



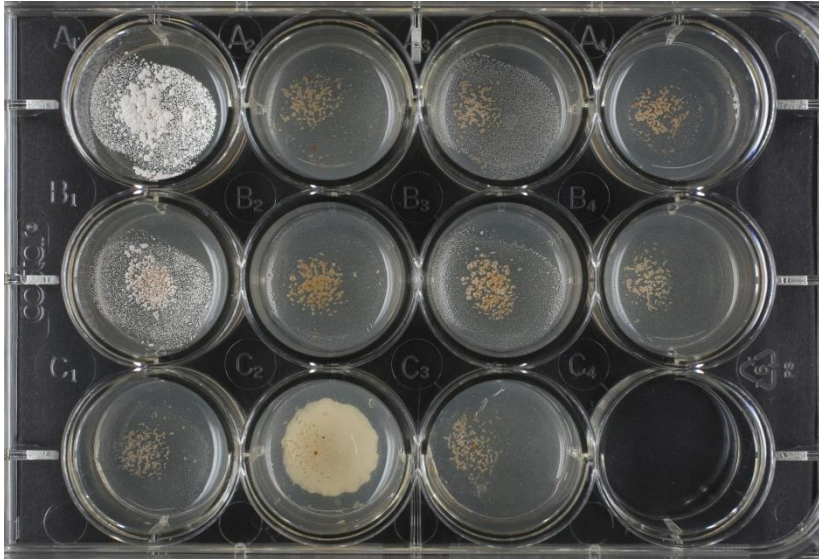
Abbildung 2: Apizym-Teststreifen mit Keim DSM 45379.



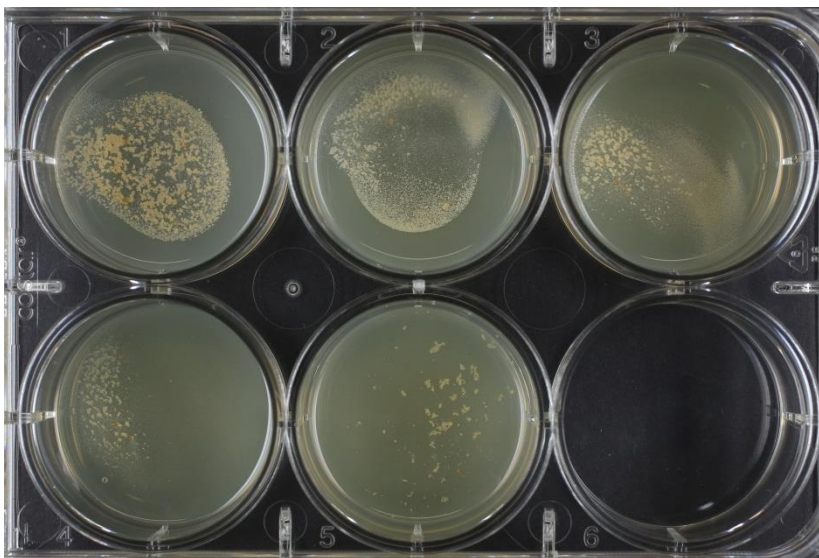
**Plates** (65, ISP2, ISP3, ISP4, ISP5, ISP7)



(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%)**