

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

Strain		DSM 45197
Genus		<b><i>Nocardia</i></b>
Species		<b><i>iwensis</i></b>
Status		
Risk group		L1
Type strain		DSM 45197, JCM 18299, NRRL 5646, NRRL B-24671
Reference		
Author		Lamm, A. S., Khare, A., Conville, P., Lau, P. C., Bergeron, H., Rosazza, J. P.
Title		<i>Nocardia iwensis</i> sp. nov., an organism rich in biocatalytically important enzymes and nitric oxide synthase
Journal		<i>Int J Syst Evol Microbiol</i>
Volume		<b>59 ( Pt 10 )</b>
Page		2408-2414
Year		2009
Morphology		
Agar	ISP 2 - growth/G	good
Agar	ISP 2 - colony color/R	ochre yellow (1024)
Agar	ISP 2 - aerial mycelium/A	cream (9001)
Agar	ISP 2 - soluble pigment/S	none
Agar	ISP 3 - G	none
Agar	ISP 3 - R	none
Agar	ISP 3 - A	none
Agar	ISP 3 - S	none
Agar	ISP 4 - G	none
Agar	ISP 4 - R	none
Agar	ISP 4 - A	none
Agar	ISP 4 - S	none
Agar	ISP 5 - G	good
Agar	ISP 5 - R	ivory (1014)
Agar	ISP 5 - A	cream (9001)
Agar	ISP 5 - S	none
Agar	ISP 6 - G	/
Agar	ISP 6 - R	/
Agar	ISP 6 - A	/
Agar	ISP 6 - S	/
Agar	ISP 7 - G	good
Agar	ISP 7 - R	ocher brown (8001)
Agar	ISP 7 - A	beige (1001)
Agar	ISP 7 - S	beige (1001)
Agar	suter with tyrosine - G	good
Agar	suter with tyrosine - R	mahogany brown (8016)
Agar	suter with tyrosine - A	basalt grey (7012)
Agar	suter with tyrosine - S	copper brown (8004)

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Agar	suter without tyrosine - G	good
Agar	suter without tyrosine - R	sand yellow (1002)
Agar	suter without tyrosine - A	ivory (1014)
Agar	suter without tyrosine - S	none
	Sporechains/Sporangia	
Physiology		
Melanin		-
pH	range	
pH	optimum	
temperature	range	
temperature	optimume	
sodium chloride tolerance		5,0%
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)	2
Api zym	Lipase (C14)	1
Api zym	Leucin arylamidase	4
Api zym	Valine arylamidase	4
Api zym	Cystine arylamidase	2
Api zym	Trypsin	1
Api zym	Chymotrypsin	0
Api zym	Phosphatase acid	5
Api zym	Naphtol-AS-BI-phosphohydrolase	5
Api zym	alpha galactosidase	0
Api zym	beta galactosidase	0
Api zym	beta glucuronidase	0
Api zym	alpha glucosidase	5
Api zym	beta glucosidase	5
Api zym	N-acetyl-beta-glucoseamidase	5
Api zym	alpha mannosidase	5
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	-

## Apicoryne



Abbildung 1: Apicoryne-Teststreifen mit Keim DSM 45197.

## Apizym



Abbildung 2: Apizym-Teststreifen mit Keim DSM 45197.

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



( 5436-H, 5436+H, 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%)**

