

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

Strain		DSM 42174
Genus		<b><i>Streptomyces</i></b>
Species		<b><i>humi</i></b>
Status		
Risk group		1 (provisional classification by DSMZ)
Type strain		MUSC 119, MCCC 1K00505
Genbank accession numbers		16S rRNA gene: <a href="#">KJ632661</a>
Reference		
Author		Zainal, N., Ser, H. L., Yin, W. F., Tee, K. K., Lee, L. H., Chan, K. G.
Title		<i>Streptomyces humi</i> sp. nov., an actinobacterium isolated from soil of a mangrove forest
Journal		<i>Antonie Van Leeuwenhoek</i>
Volume		<b>109</b> (3)
Page		467-74
Year		2016
Morphology		
Agar	ISP 2 - growth/G	good
Agar	ISP 2 - colony color/R	clay brown (8003)
Agar	ISP 2 - aerial mycelium/A	stone grey (7030)
Agar	ISP 2 - soluble pigment/S	ochre brown (8001)
Agar	ISP 3 - G	good
Agar	ISP 3 - R	brown beige (1011)
Agar	ISP 3 - A	stone grey (7030)
Agar	ISP 3 - S	copper brown (8004)
Agar	ISP 4 - G	sparse
Agar	ISP 4 - R	brown beige (1011)
Agar	ISP 4 - A	light ivory (1015)
Agar	ISP 4 - S	brown beige (1011)
Agar	ISP 5 - G	good
Agar	ISP 5 - R	nut brown (8011)
Agar	ISP 5 - A	stone grey (7030)
Agar	ISP 5 - S	clay brown (8003)
Agar	ISP 6 - G	sparse
Agar	ISP 6 - R	grey beige (1019)
Agar	ISP 6 - A	none
Agar	ISP 6 - S	olive brown (8008)
Agar	ISP 7 - G	good
Agar	ISP 7 - R	sepia brown (8014)
Agar	ISP 7 - A	grey beige (1019)
Agar	ISP 7 - S	fawn brown (8007)
Agar	suter with tyrosine - G	good
Agar	suter with tyrosine - R	umbra grey (7022)

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Agar	suter with tyrosine - A	none
Agar	suter with tyrosine - S	jet black (9005)
Agar	suter without tyrosine - G	sparse
Agar	suter without tyrosine - R	grey beige (1019)
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		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	5
Api zym	Esterase (C4)	1
Api zym	Esterase Lipase (C8)	3
Api zym	Lipase (C14)	2
Api zym	Leucin arylamidase	5
Api zym	Valine arylamidase	3
Api zym	Cystine arylamidase	2
Api zym	Trypsin	0
Api zym	Chymotrypsin	0
Api zym	Phosphatase acid	5
Api zym	Naphtol-AS-BI-phosphohydrolase	5
Api zym	alpha galactosidase	1
Api zym	beta galactosidase	5
Api zym	beta glucuronidase	0
Api zym	alpha glucosidase	1
Api zym	beta glucosidase	3
Api zym	N-acetyl-beta-glucoseamidase	0
Api zym	alpha mannosidase	3
Api zym	alpha fucosidase	2

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	-

### Apicoryne



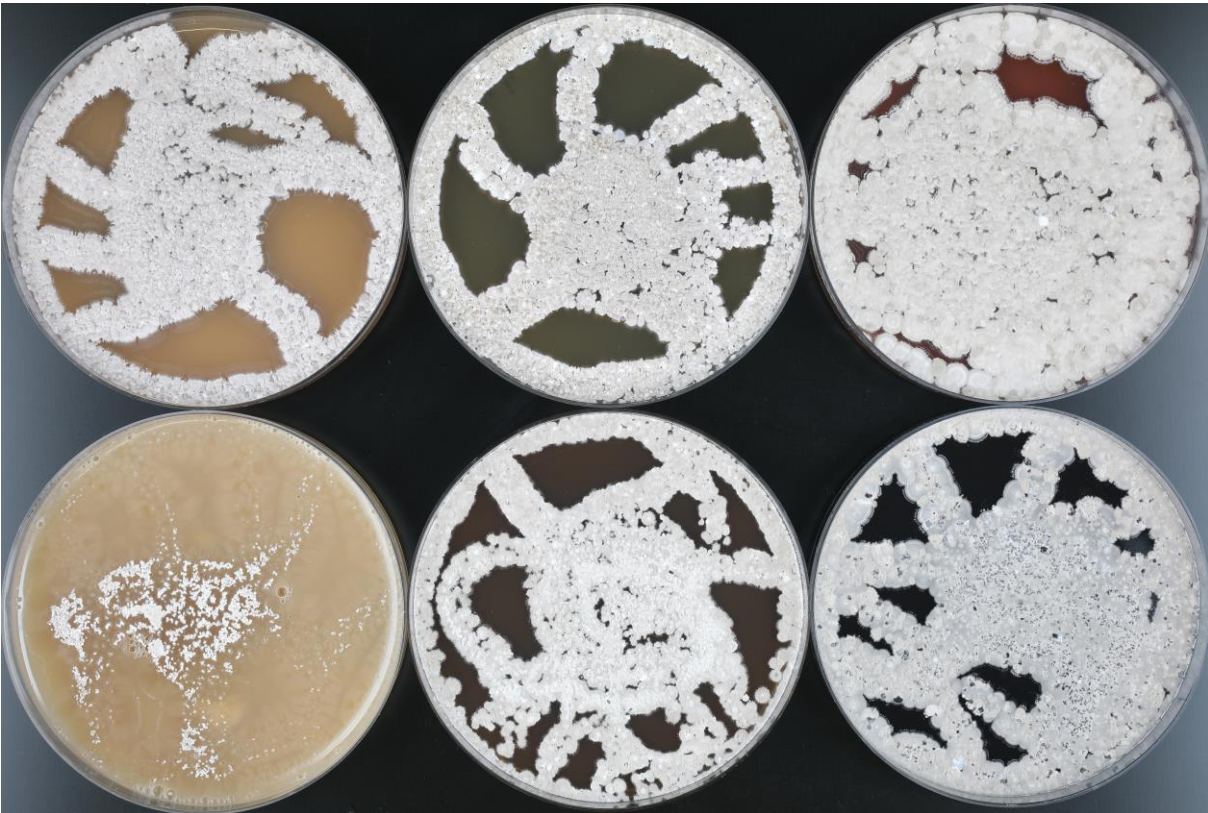
Abbildung 1: Apicoryne-Teststreifen mit Keim DSM 42174.

### Apizym



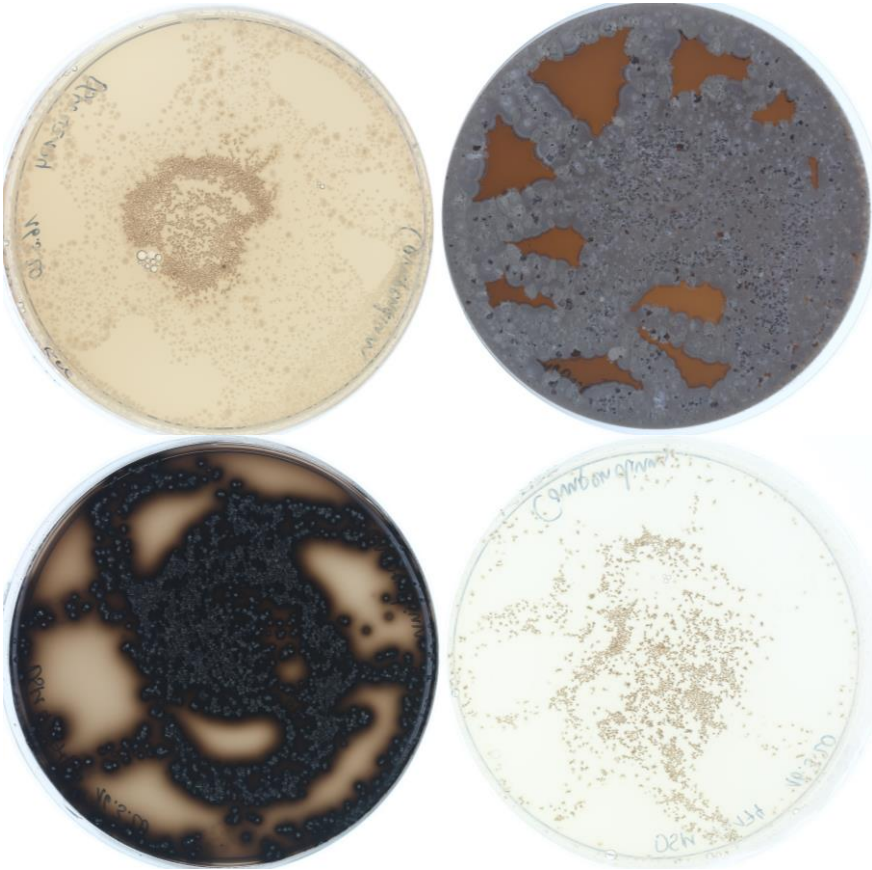
Abbildung 2: Apizym-Teststreifen mit Keim DSM 42174.

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

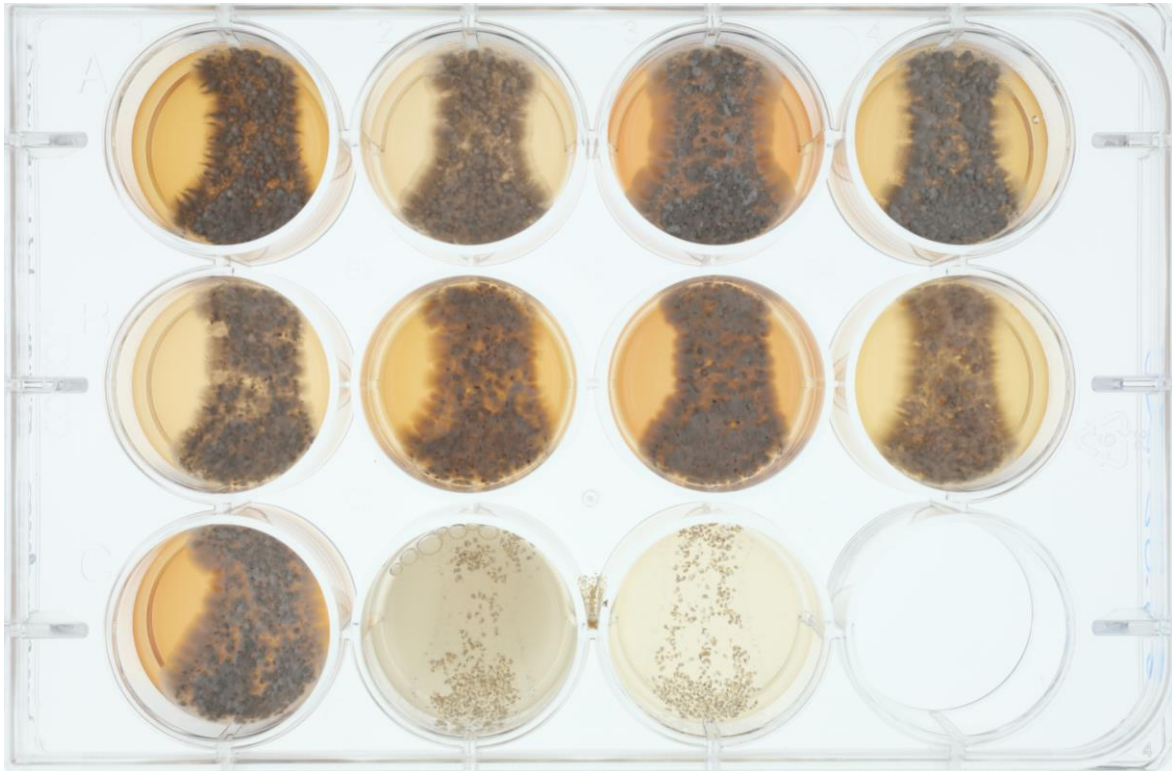




(ISP6, ISP7, SSM+T, SSM-T)



**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%)**

