

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

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|---------------------------|---------------------------|---|
| Strain | | DSM 46742 |
| Genus | | <i>Actinomadura</i> |
| Species | | <i>xylanilytica</i> |
| Status | | |
| Risk group | | L1 |
| Type strain | | KACC 20919, NCIMB 14771, NRRL B-24852, BK147 |
| Genbank accession numbers | | 16S rRNA gene: FR692101 |
| Reference | | |
| Author | | Zucchi, T. D., Kim, B. Y., Bonda, A. N., Goodfellow, M. |
| Title | | <i>Actinomadura xylanilytica</i> sp. nov., an actinomycete isolated from soil |
| Journal | | <i>Int J Syst Evol Microbiol</i> |
| Volume | | 63 (Pt 2) |
| Page | | 576-80 |
| Year | | 2013 |
| Morphology | | |
| Agar | ISP 2 - growth/G | good |
| Agar | ISP 2 - colony color/R | silk grey (7044) |
| Agar | ISP 2 - aerial mycelium/A | signal white (9003), sparse |
| Agar | ISP 2 - soluble pigment/S | none |
| Agar | ISP 3 - G | sparse |
| Agar | ISP 3 - R | light ivory (1015) |
| Agar | ISP 3 - A | traffic white (9016), sparse |
| Agar | ISP 3 - S | ivory (1014) |
| Agar | ISP 4 - G | sparse |
| Agar | ISP 4 - R | colourless |
| Agar | ISP 4 - A | none |
| Agar | ISP 4 - S | none |
| Agar | ISP 5 - G | sparse |
| Agar | ISP 5 - R | grey white (9002) |
| Agar | ISP 5 - A | signal white (9003), sparse |
| Agar | ISP 5 - S | none |
| Agar | ISP 6 - G | sparse |
| Agar | ISP 6 - R | light ivory (1015) |
| Agar | ISP 6 - A | none |
| Agar | ISP 6 - S | none |
| Agar | ISP 7 - G | sparse |
| Agar | ISP 7 - R | light ivory (1015) |
| Agar | ISP 7 - A | signal white (9003), sparse |
| Agar | ISP 7 - S | green beige (1000) |
| Agar | suter with tyrosine - G | sparse |
| Agar | suter with tyrosine - R | light ivory (1015), khaki grey (7008) |

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| | | |
|---------------------------|--------------------------------|--|
| Agar | suter with tyrosine - A | none |
| Agar | suter with tyrosine - S | none |
| Agar | suter without tyrosine - G | sparse |
| Agar | suter without tyrosine - R | oyster white (1013), khaki grey (7008) |
| 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 | | 2,5% |
| lysozyme tolerance | | |
| use of carbohydrates | glucose | + |
| use of carbohydrates | arabinose | - |
| use of carbohydrates | sucrose | (+) aerial mycelium, sparse |
| use of carbohydrates | xylose | - |
| use of carbohydrates | inositol | (+) |
| use of carbohydrates | mannose | + |
| use of carbohydrates | fructose | ++ aerial mycelium |
| use of carbohydrates | rhamnose | (+) |
| use of carbohydrates | raffinose | - aerial mycelium, sparse |
| use of carbohydrates | cellulose | (+) aerial mycelium, sparse |
| Api zym | Phosphatase alkaline | 5 |
| Api zym | Esterase (C4) | 1 |
| Api zym | Esterase Lipase (C8) | 2 |
| Api zym | Lipase (C14) | 0 |
| Api zym | Leucin arylamidase | 5 |
| Api zym | Valine arylamidase | 5 |
| Api zym | Cystine arylamidase | 2 |
| 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 | 1 |
| 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 | 0 |
| Api zym | alpha fucosidase | 0 |

| | | |
|------------|-------------------------------|---|
| 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



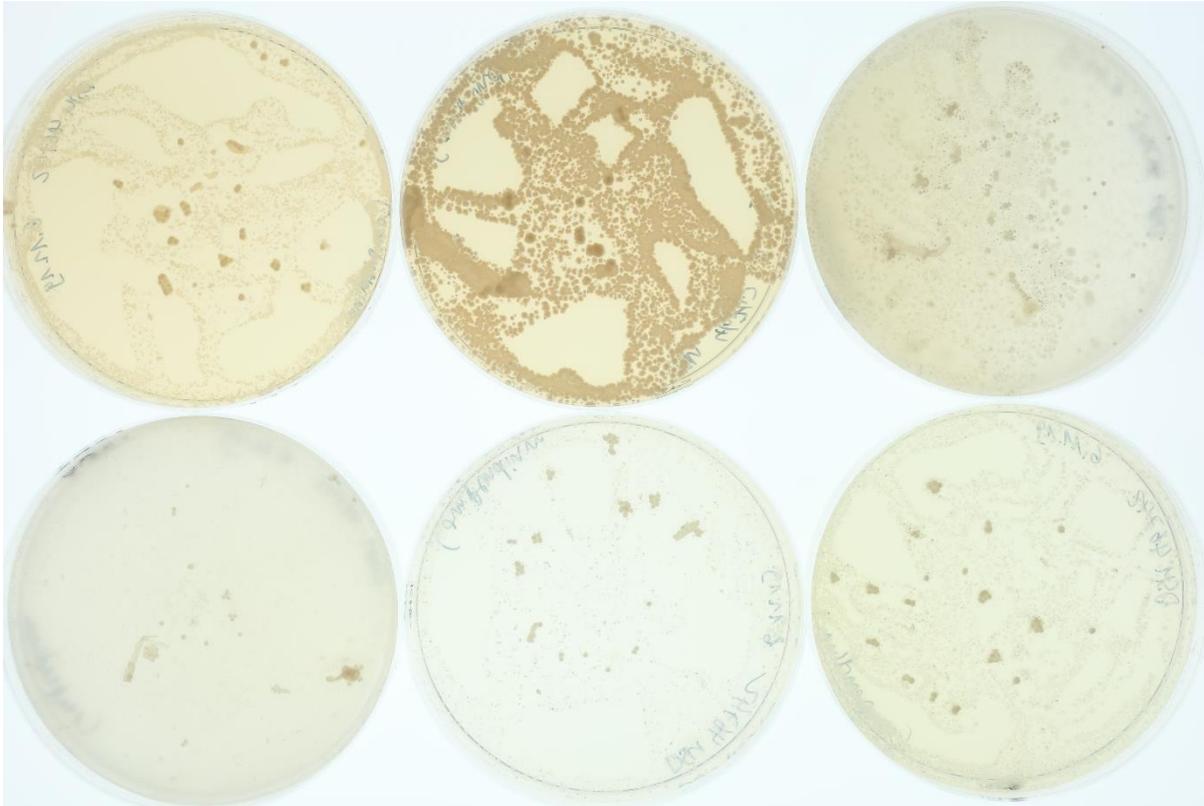
Abbildung 1: Apicoryne-Teststreifen mit Keim DSM 46742.

Apizym

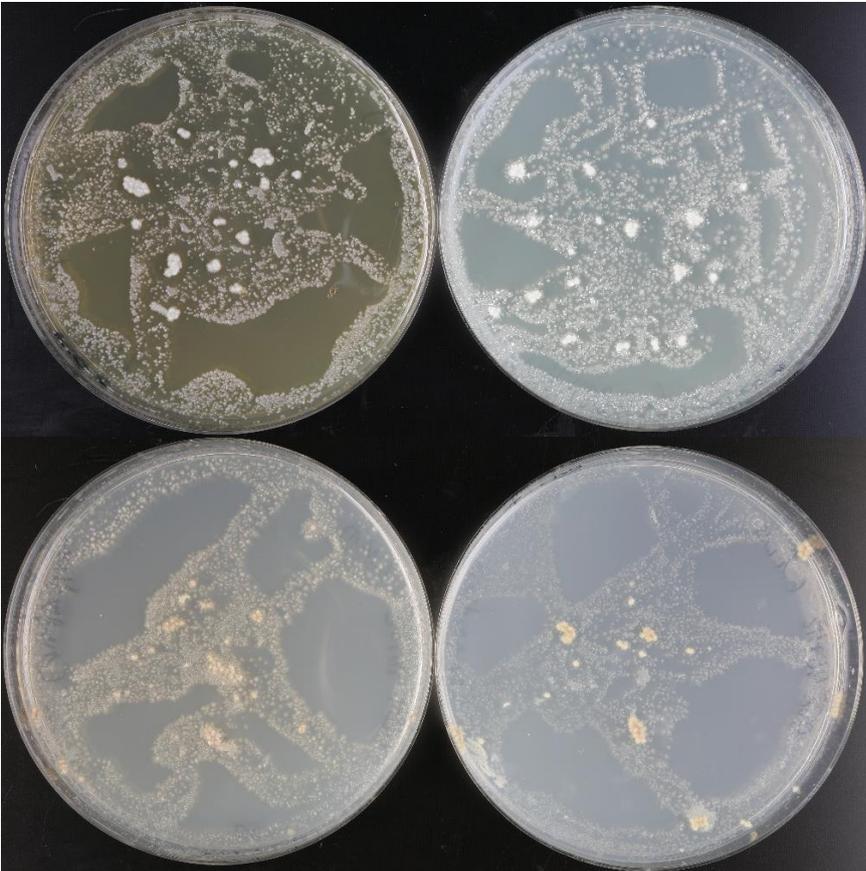
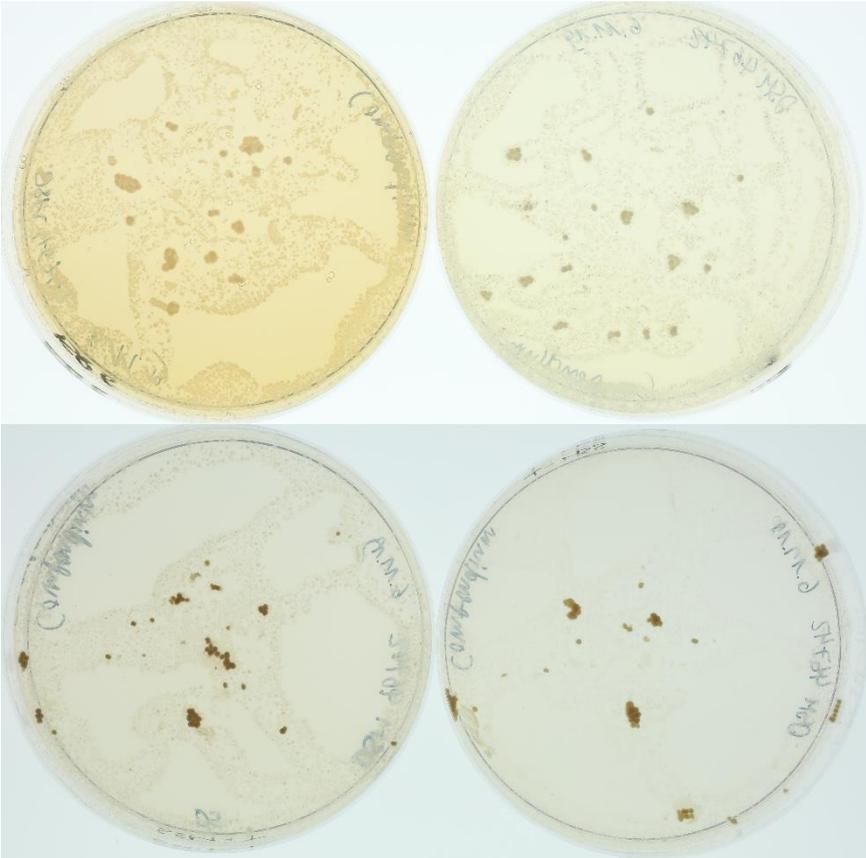


Abbildung 2: Apizym-Teststreifen mit Keim DSM 46742.

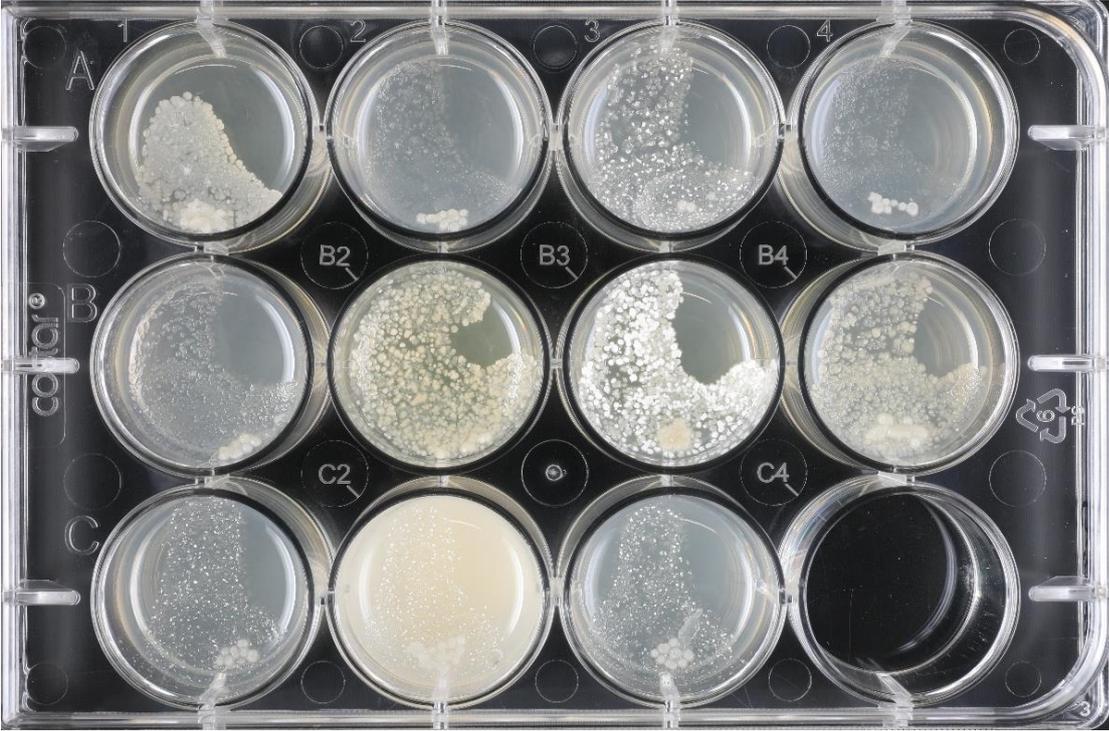
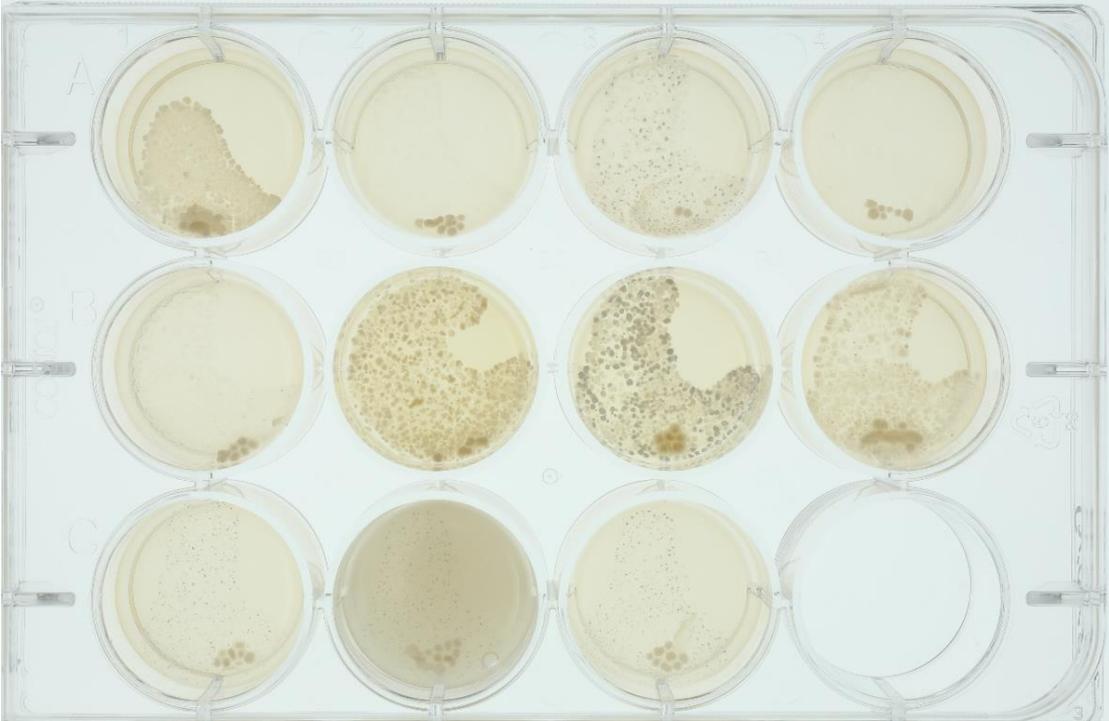
Plates (553, ISP2, ISP3, ISP4, ISP5, ISP7)



(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%)**

