

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

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|-------------|---------------------------|---|
| Strain | | DSM 42061 |
| Genus | | <i>Streptomyces</i> |
| Species | | <i>pratens</i> |
| Status | | |
| Risk group | | L1 |
| Type strain | | CGMCC 4.5800, KACC 20904, BK138 |
| Reference | | |
| Author | | Kim, B. Y., Rong, X., Zucchi, T. D., Bonda, A. N., Huang, Y., Goodfellow, M |
| Title | | <i>Streptomyces herbaceus</i> sp. nov., <i>Streptomyces incanus</i> sp. nov. and <i>Streptomyces pratens</i> sp. nov., isolated from the soil of a hay meadow |
| Journal | | <i>Int J Syst Evol Microbiol</i> |
| Volume | | 62 |
| Page | | 1908-1913 |
| Year | | 2012 |
| Morphology | | |
| Agar | ISP 2 - growth/G | Sparse- good |
| Agar | ISP 2 - colony color/R | Ivory (1014)- none |
| Agar | ISP 2 - aerial mycelium/A | Traffic white (9016) |
| Agar | ISP 2 - soluble pigment/S | None |
| Agar | ISP 3 - G | Sparse- good |
| Agar | ISP 3 - R | n.d. |
| Agar | ISP 3 - A | Yellow grey (7034), traffic white (9016) |
| Agar | ISP 3 - S | None |
| Agar | ISP 4 - G | Sparse- good |
| Agar | ISP 4 - R | Oyster white (1013) |
| Agar | ISP 4 - A | Grey white (9002) |
| Agar | ISP 4 - S | None |
| Agar | ISP 5 - G | Sparse |
| Agar | ISP 5 - R | Ivory (1014) |
| Agar | ISP 5 - A | Sparse |
| Agar | ISP 5 - S | None |
| Agar | ISP 6 - G | Sparse |
| Agar | ISP 6 - R | Ochre yellow (1024) |
| Agar | ISP 6 - A | None- sparse |
| Agar | ISP 6 - S | None |
| Agar | ISP 7 - G | Good |
| Agar | ISP 7 - R | Light ivory (1015), oyster white (1013) |
| Agar | ISP 7 - A | Sparse |
| Agar | ISP 7 - S | None |

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|---------------------------|--------------------------------|----------------------|
| Agar | suter with tyrosine - G | Good |
| Agar | suter with tyrosine - R | n.d. |
| Agar | suter with tyrosine - A | Traffic white (9016) |
| Agar | suter with tyrosine - S | None |
| Agar | suter without tyrosine - G | Sparse |
| Agar | suter without tyrosine - R | Sand yellow (1002) |
| 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 | (+) |
| 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) | 2 |
| Api zym | Esterase Lipase (C8) | 1 |
| Api zym | Lipase (C14) | 0 |
| Api zym | Leucin arylamidase | 5 |
| Api zym | Valine arylamidase | 4 |
| Api zym | Cystine arylamidase | 3 |
| Api zym | Trypsin | 0 |
| Api zym | Chymotrypsin | 0 |
| Api zym | Phosphatase acid | 4 |
| Api zym | Naphtol-AS-BI-phosphohydrolase | 5 |
| Api zym | alpha galactosidase | 0 |
| Api zym | beta galactosidase | 3 |
| Api zym | beta glucuronidase | 0 |
| Api zym | alpha glucosidase | 3 |
| Api zym | beta GLUCOSIDASE | 0 |
| Api zym | N-acetyl-beta-glucoseamidase | 0 |

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



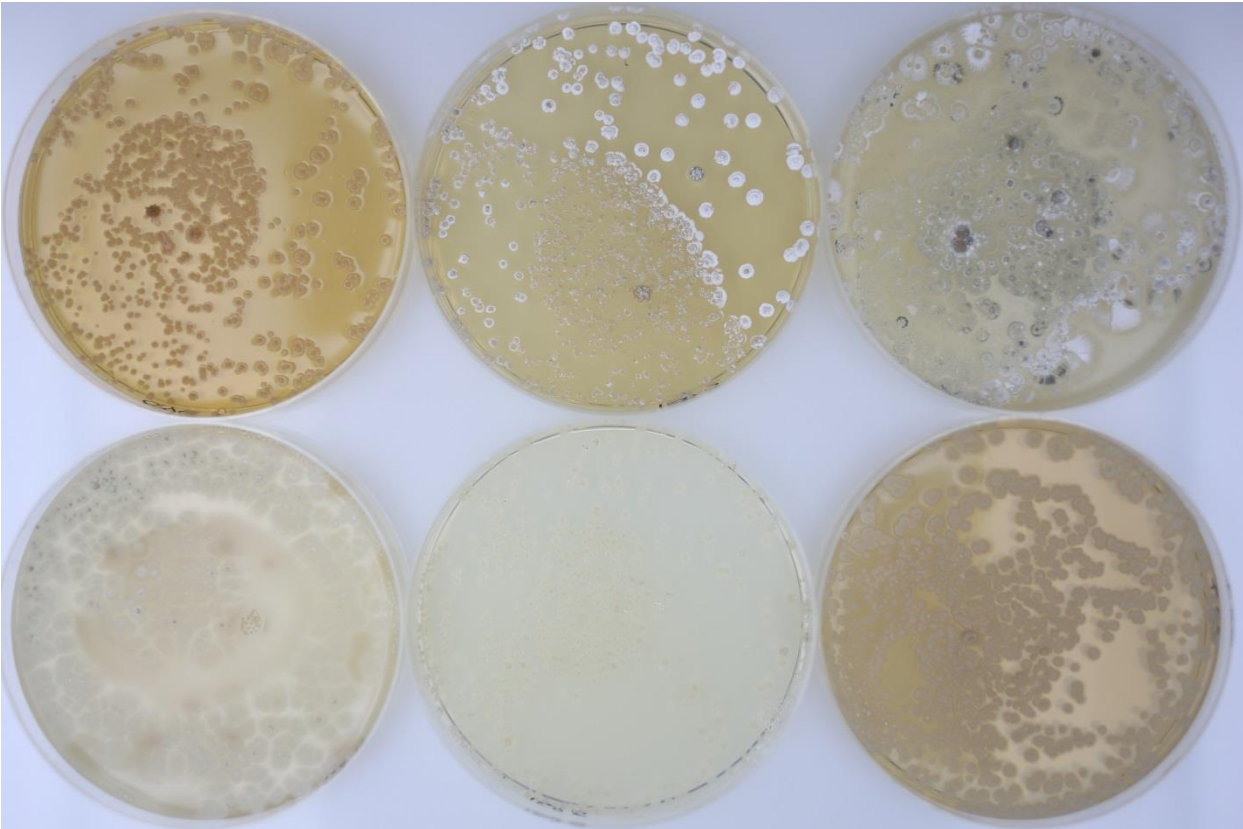
Abbildung 1: Apicoryne-Teststreifen mit Keim DSM.

Apizym

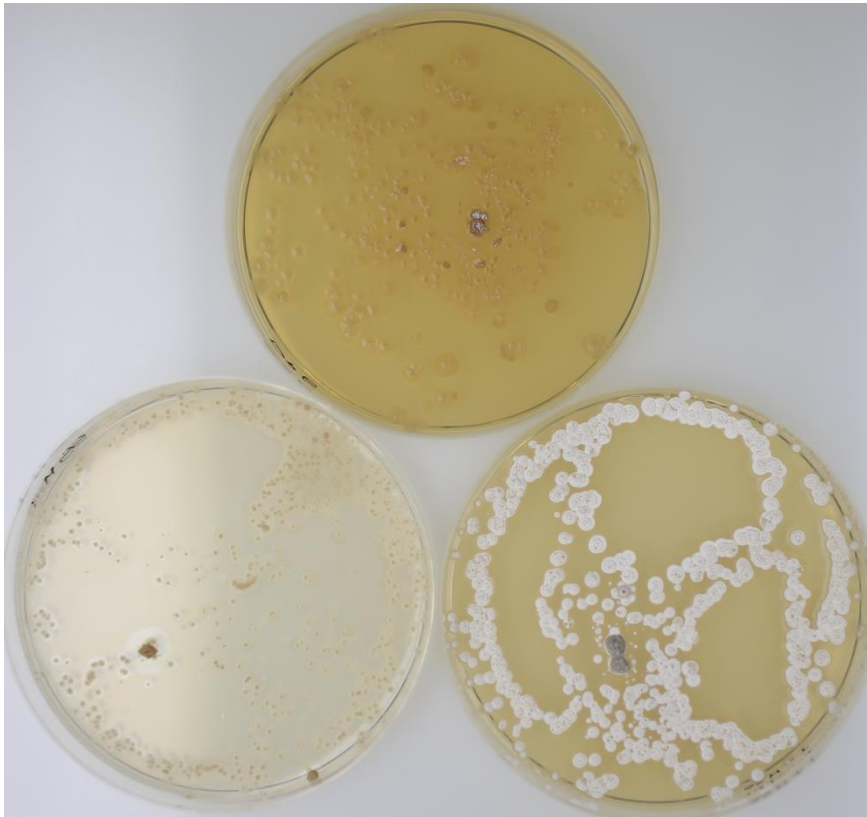


Abbildung 2: Apizym-Teststreifen mit Keim DSM.

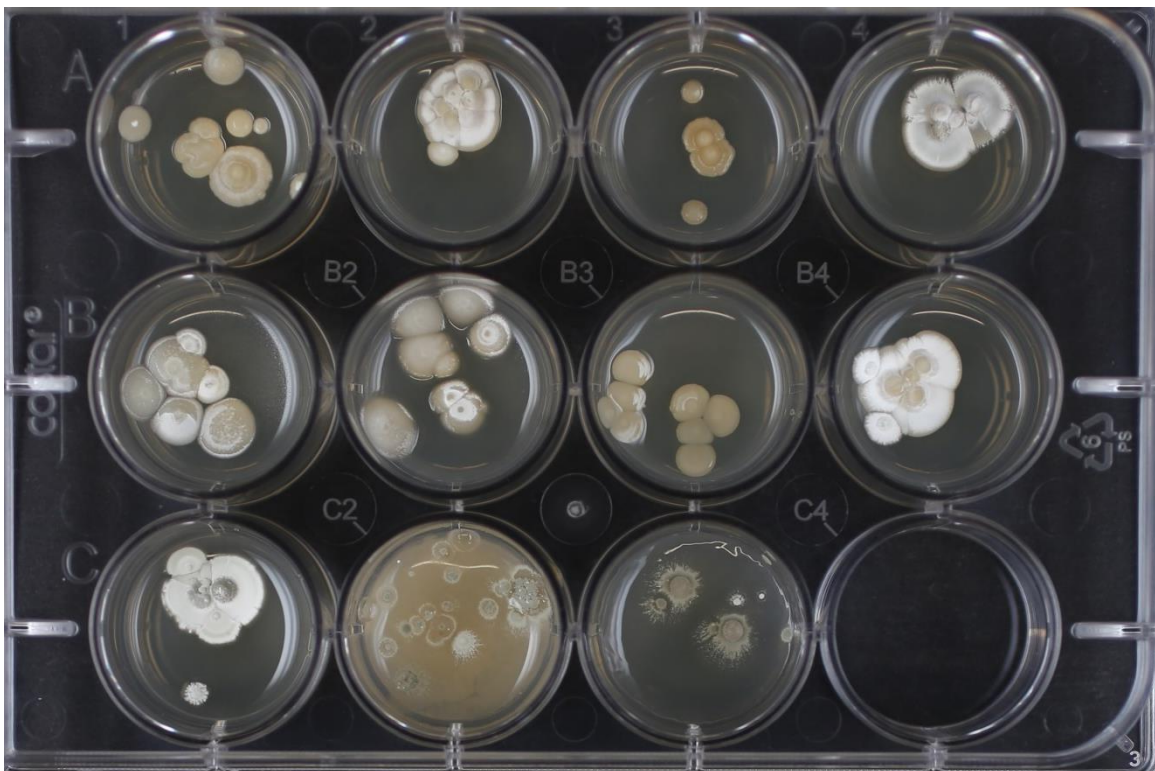
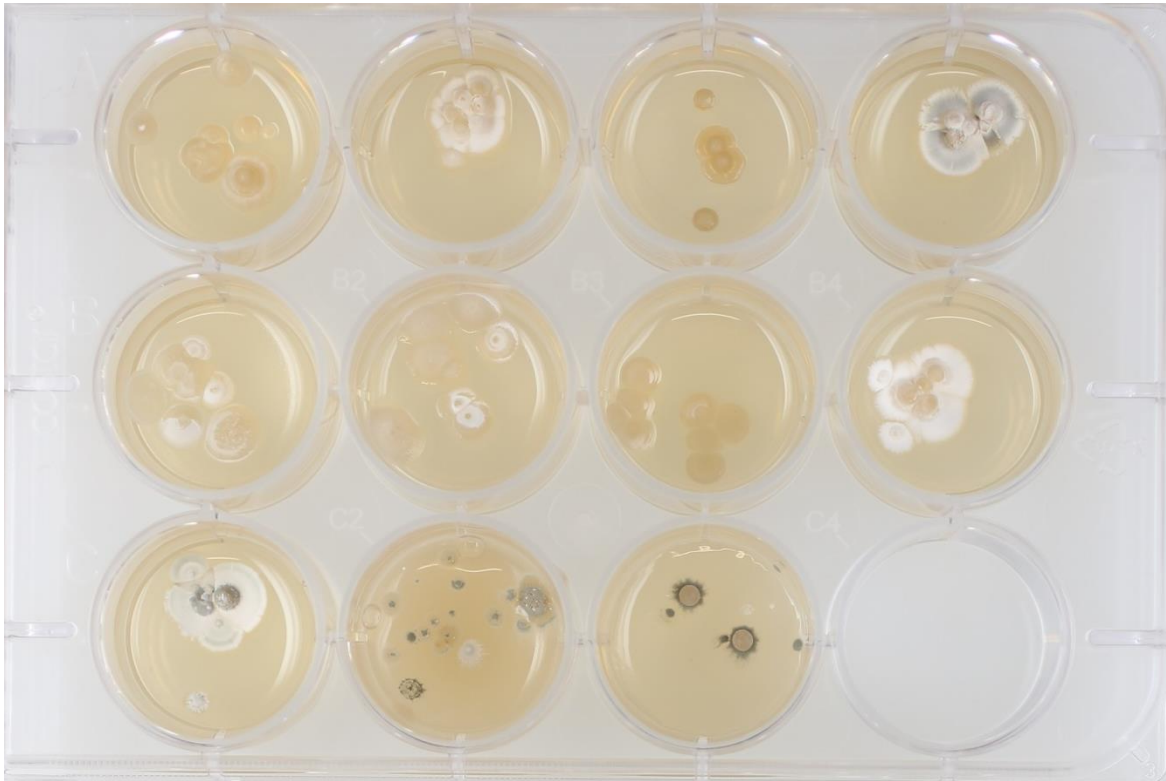
Plates (65, ISP2, ISP3, ISP4, ISP5, ISP7)



(ISP6, 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%)

