

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

|             |                           |   |
|-------------|---------------------------|---|
| Strain      |                           | DSM 44952   |
| Genus       |                           | <b><i>Nocardia</i></b>  |
| Species     |                           | <b><i>mexicana</i></b>  |
| Status      |                           |   |
| Risk group  |                           | L2 (classification according to German TRBA)  |
| Type strain |                           | CIP 108295, DSM 44952   |
| Reference   |                           |   |
| Author      |                           | Rodríguez-Nava, V., Couble, A., Molinard, C., Sandoval, H., Boiron, P., Laurent, F. |
| Title       |                           | <i>Nocardia mexicana</i> sp. nov., a New Pathogen Isolated from Human Mycetomas     |
| Journal     |                           | <i>J.Clin.Microbiol.</i>  |
| Volume      |                           | 42  |
| Page        |                           | 4530-4535   |
| Year        |                           | 2004  |
| Morphology  |                           |   |
| Agar        | ISP 2 - growth/G          | good  |
| Agar        | ISP 2 - colony color/R    | sand yellow (1002)  |
| Agar        | ISP 2 - aerial mycelium/A | cream (9001)  |
| Agar        | ISP 2 - soluble pigment/S | none  |
| Agar        | ISP 3 - G                 | sparse  |
| Agar        | ISP 3 - R                 | colourless  |
| Agar        | ISP 3 - A                 | none  |
| Agar        | ISP 3 - S                 | none  |
| Agar        | ISP 4 - G                 | sparse  |
| Agar        | ISP 4 - R                 | colourless  |
| Agar        | ISP 4 - A                 | none  |
| Agar        | ISP 4 - S                 | none  |
| Agar        | ISP 5 - G                 | good  |
| Agar        | ISP 5 - R                 | olive brown (8008)  |
| Agar        | ISP 5 - A                 | cream (9001)  |
| Agar        | ISP 5 - S                 | none  |
| Agar        | ISP 6 - G                 | good  |
| Agar        | ISP 6 - R                 | colourless  |
| Agar        | ISP 6 - A                 | none  |
| Agar        | ISP 6 - S                 | none  |
| Agar        | ISP 7 - G                 | good  |
| Agar        | ISP 7 - R                 | terra brown (8028)  |
| Agar        | ISP 7 - A                 | light ivory (1015)  |
| Agar        | ISP 7 - S                 | brown beige(1011)   |
| Agar        | suter with tyrosine - G   | good  |
| Agar        | suter with tyrosine - R   | colourless  |
| Agar        | suter with tyrosine - A   | none  |

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|                           |                                |            |
|---------------------------|--------------------------------|------------|
| Agar                      | suter with tyrosine - S        | none       |
| Agar                      | suter without tyrosine - G     | good       |
| Agar                      | suter without tyrosine - R     | colourless |
| Agar                      | suter without tyrosine - A     | none       |
| Agar                      | suter without tyrosine - S     | none       |
|                           | Sporechains/Sporangia          |            |
| Physiology                |                                |            |
| Melanin                   |                                | - - - -    |
| pH                        | range                          |            |
| pH                        | optimum                        |            |
| temperature               | range                          |            |
| temperature               | optimume                       |            |
| 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           | 4          |
| Api zym                   | Esterase (C4)                  | 3          |
| Api zym                   | Esterase Lipase (C8)           | 2          |
| Api zym                   | Lipase (C14)                   | 0          |
| Api zym                   | Leucin arylamidase             | 4          |
| 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 | 4          |
| Api zym                   | alpha galactosidase            | 0          |
| Api zym                   | beta galactosidase             | 2          |
| Api zym                   | beta glucuronidase             | 0          |
| Api zym                   | alpha glucosidase              | 2          |
| Api zym                   | beta GLUCOSIDASE               | 5          |
| 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         | - |
| 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

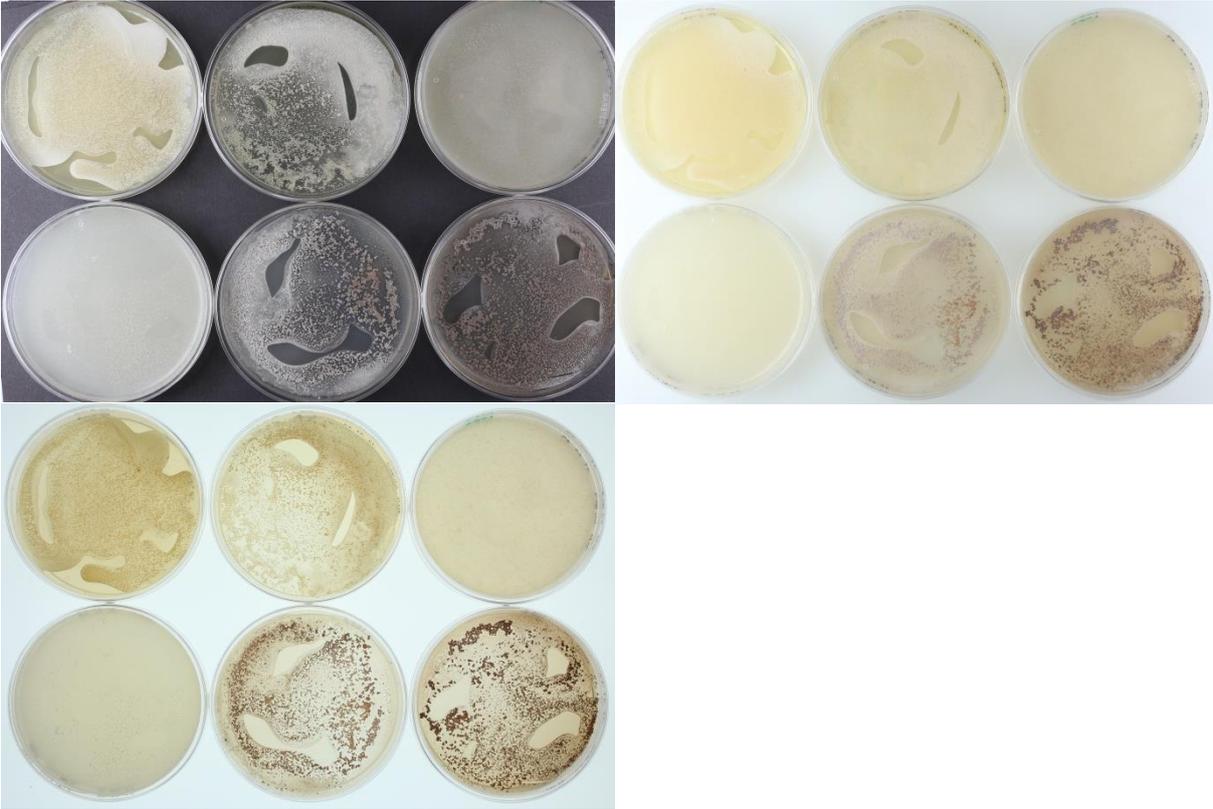


Abbildung 1: Apicoryne-Teststreifen mit Keim DSM 44952 .

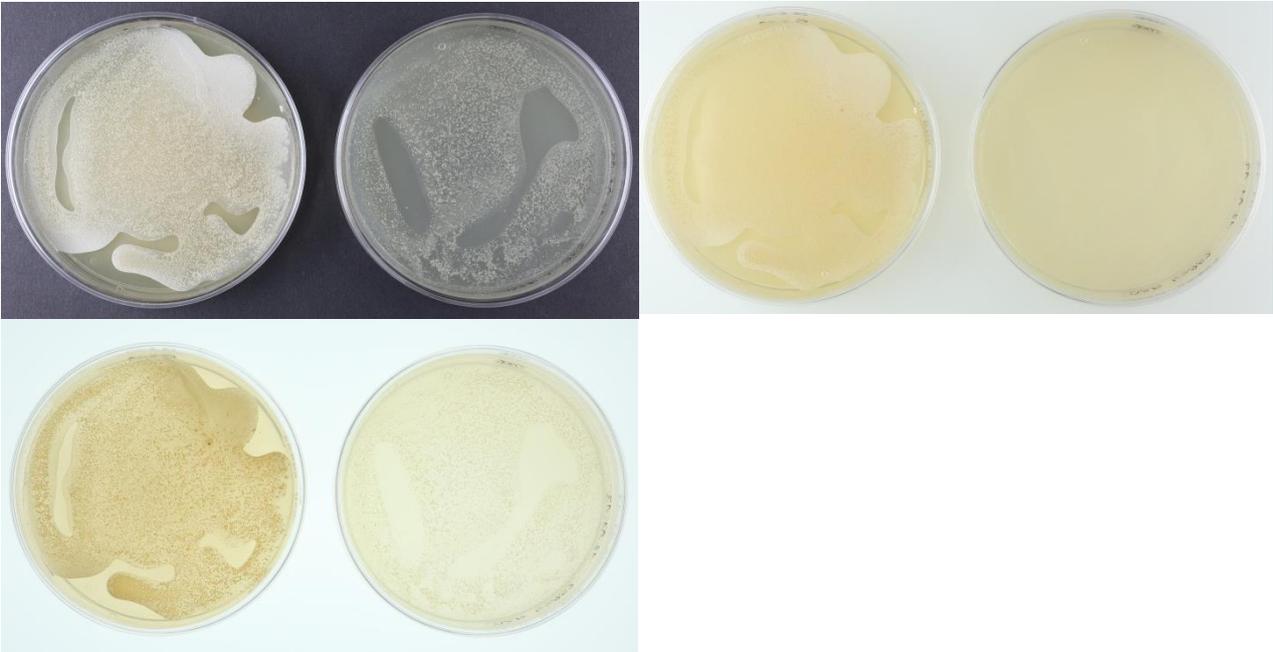
## Apizym



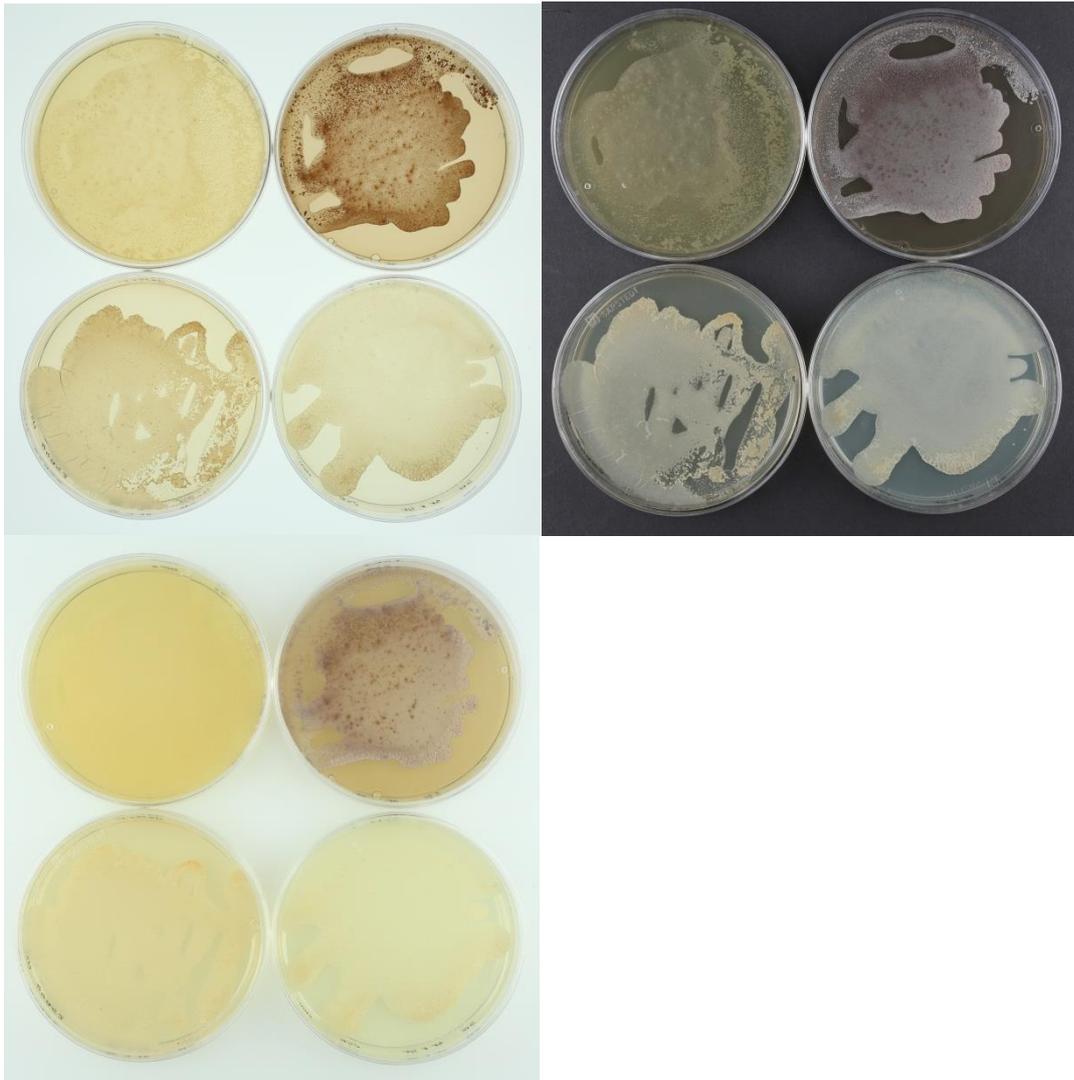
Abbildung 2: Apizym-Teststreifen mit Keim DSM 44952.



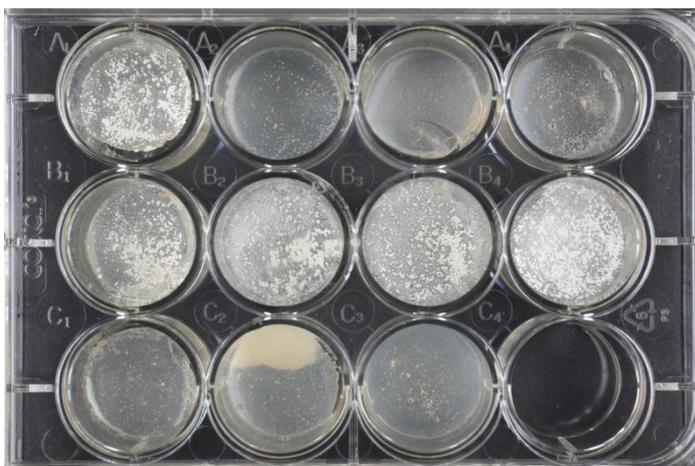
**Plates** (65, ISP2, ISP3, ISP4, ISP5, ISP7)



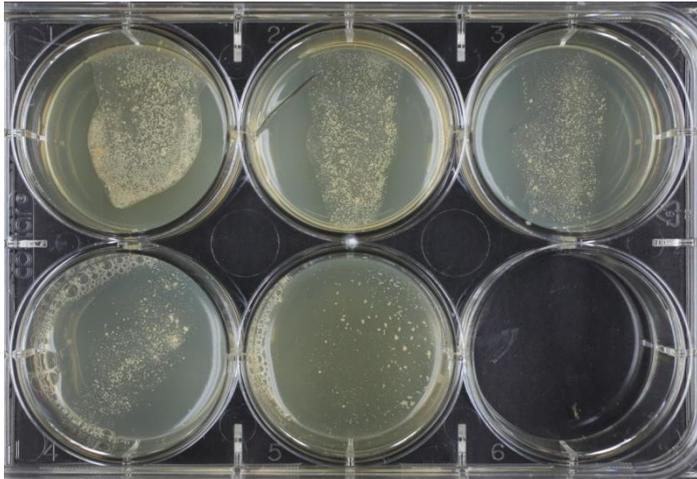
(65,5006)



(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%)**