

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

|             |                           |  |
|-------------|---------------------------|--|
| Strain      |                           | DSM 23871  |
| Genus       |                           | <b><i>Leifsonia</i></b>  |
| Species     |                           | <b><i>solis</i></b>  |
| Status      |                           |  |
| Risk group  |                           | L1   |
| Type strain |                           | JCM 15679, LMG 24767, TG-S248  |
| Reference   |                           |  |
| Author      |                           | Madhaiyan, M., Poonguzhali, S., Lee, J. S., Senthilkumar, M., Lee, K. C., Sundaram, S. (2010). <b>60</b> ( Pt 6 ): 1322-1327 |
| Title       |                           | <i>Leifsonia solis</i> sp. nov., a yellow-pigmented actinobacterium isolated from teak rhizosphere soil.                     |
| Journal     |                           | Int J Syst Evol Microbiol  |
| Volume      |                           | 60   |
| Page        |                           | 1322-1327  |
| Year        |                           | 2010   |
| Morphology  |                           |  |
| Agar        | ISP 2 - growth/G          | good   |
| Agar        | ISP 2 - colony color/R    | ivory (1014)   |
| Agar        | ISP 2 - aerial mycelium/A | none   |
| 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                 | Decreased  |
| Agar        | ISP 5 - R                 | None   |
| Agar        | ISP 5 - A                 | None   |
| 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                 | decreased  |
| Agar        | ISP 7 - R                 | none   |
| Agar        | ISP 7 - A                 | none   |
| Agar        | ISP 7 - S                 | none   |
| Agar        | suter with tyrosine - G   | Decreased  |
| Agar        | suter with tyrosine - R   | None   |
| Agar        | suter with tyrosine - A   | None   |

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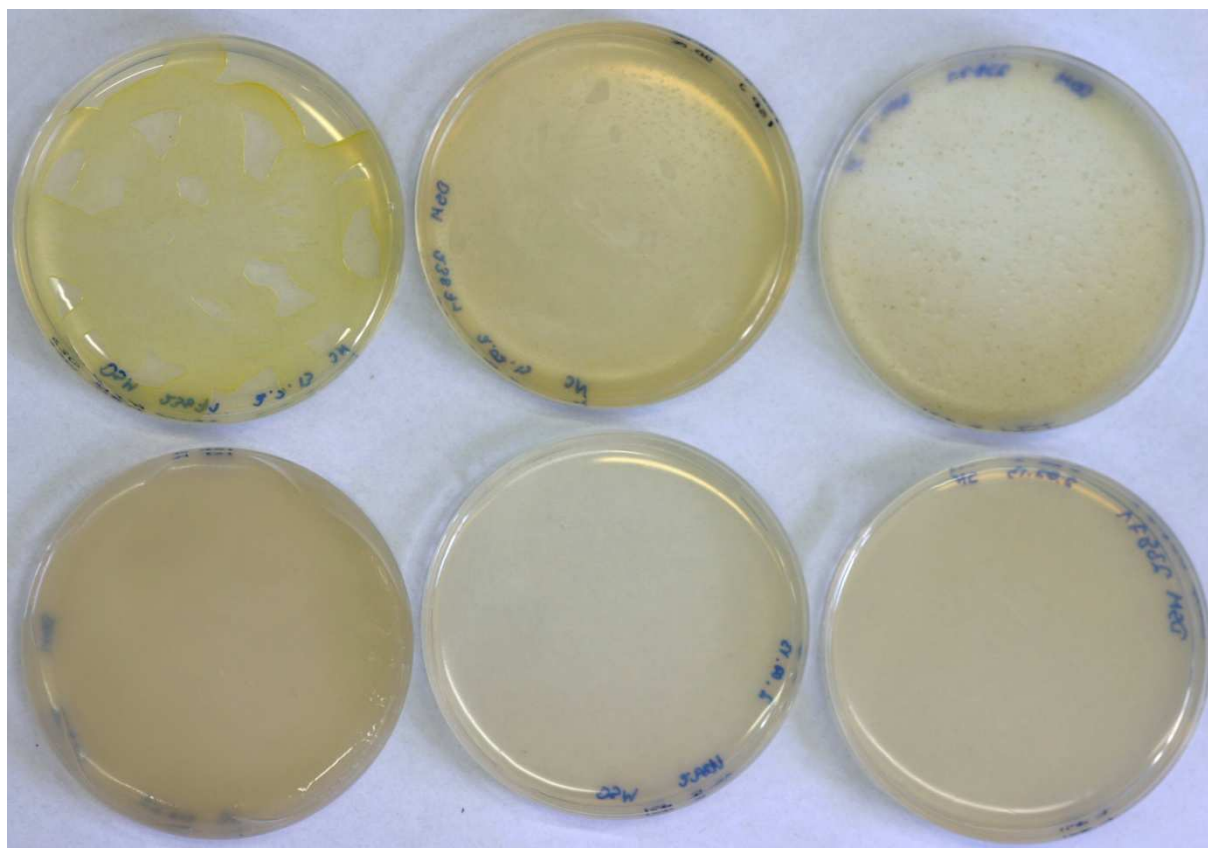
|                          |                                |           |
|--------------------------|--------------------------------|-----------|
| Agar                     | suter with tyrosine - S        | None      |
| Agar                     | suter without tyrosine - G     | Decreased |
| Agar                     | suter without tyrosine - R     | None      |
| Agar                     | suter without tyrosine - A     | None      |
| Agar                     | suter without tyrosine - S     | None      |
|                          | Sporechains/Sporangia          |           |
| Physiology               |                                |           |
| Melanin                  |                                | -         |
| pH                       | range                          |           |
| pH                       | optimum                        |           |
| temperature              | range                          |           |
| temperature              | optimume                       |           |
| sodim chloride tolerance |                                | 10%       |
| 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           | 1         |
| Api zym                  | Esterase (C4)                  | 0         |
| Api zym                  | Esterase Lipase (C8)           | 0         |
| Api zym                  | Lipase (C14)                   | 0         |
| Api zym                  | Leucin arylamidase             | 0         |
| Api zym                  | Valine arylamidase             | 0         |
| Api zym                  | Cystine arylamidase            | 0         |
| Api zym                  | Trypsin                        | 0         |
| Api zym                  | Chymotrypsin                   | 0         |
| Api zym                  | Phosphatase acid               | 3         |
| Api zym                  | Naphtol-AS-BI-phosphohydrolase | 0         |
| Api zym                  | alpha galactosidase            | 0         |
| Api zym                  | beta galactosidase             | 0         |
| Api zym                  | beta glucuronidase             | 0         |
| Api zym                  | alpha glucosidase              | 0         |
| Api zym                  | beta GLUCOSIDASE               | 0         |
| 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 | Lactose fermentation          | + |
| Api coryne | Sucrose fermentation          | + |
| Api coryne | Glycogen fermentation         | - |

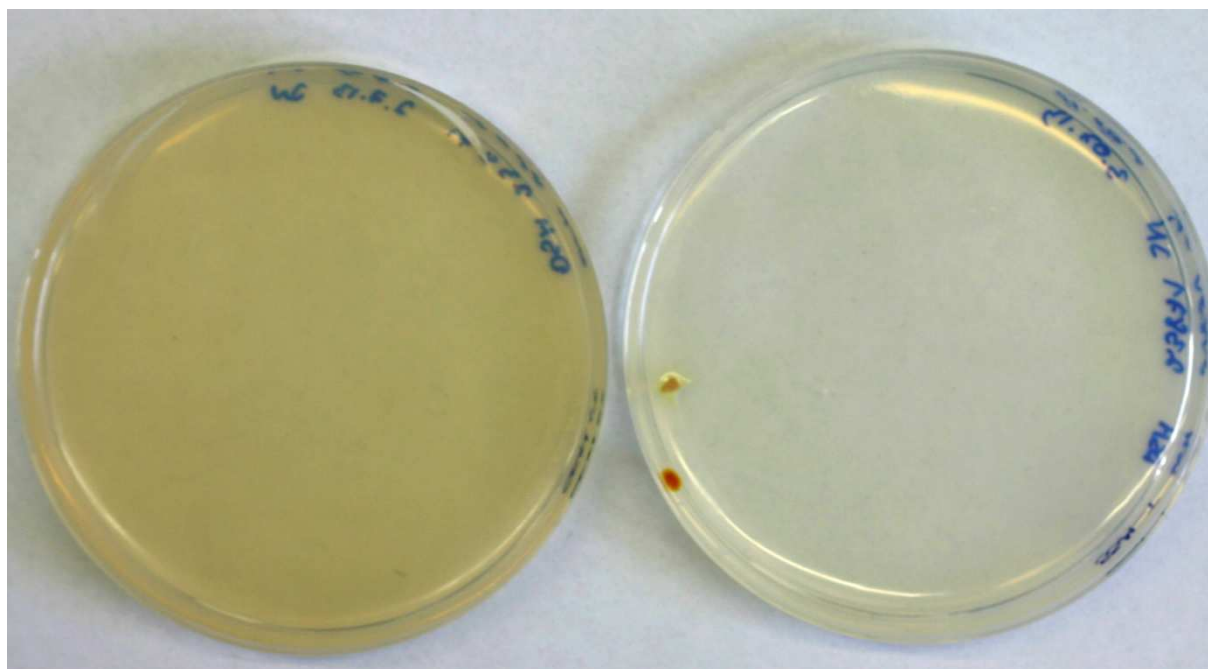
### ApiZym-Test



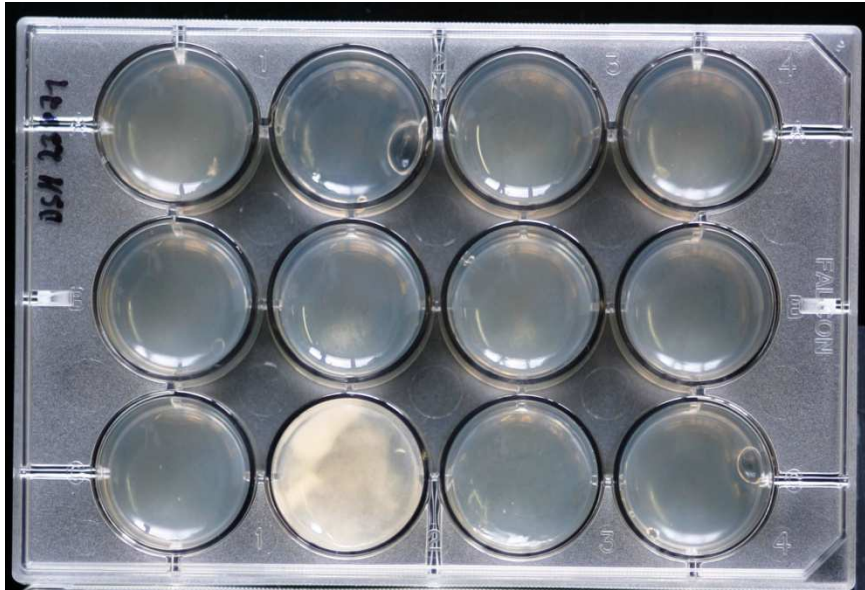
**Plates** (DSM 830, ISP2, ISP3, ISP4, ISP5, ISP7)



(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%)**

