**Supplementary Table 1 Biolog identification results of *B. altitudinis* AMCC 101304**

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| --- | --- | --- | --- | --- | --- |
| Indicators | *B. altitudinis* | Indicators | *B. altitudinis* | Indicators | *B. altitudinis* |
| Negative Control | - | myo-Inositol | + | L-Malic Acid | + |
| Positive Control | + | Glycerol | + | Bromo-Succinic Acid | - |
| Dextrin | / | D-Glucose-6-PO4 | - | Tween 40 | - |
| D-Maltose | - | D-Fructose-6-PO4 | / | γ-Amino-Butryric Acid | + |
| D-Trehalose | / | D-Aspartic Acid | + | α-Hydroxy Butyric Acid | - |
| D-Cellobiose | / | D-Serine | - | β-Hydroxy-D,L  Butyric Acid | - |
| Gentiobiose | + | Gelatin | / | α-Keto-Butyric  Acid | - |
| Sucrose | + | Glycyl-L-Prolin | - | Acetoacetic Acid | - |
| D-Turanose | - | L-Alanine | + | Propionic Acid | - |
| Stachyose | / | L-Arginine | + | Acetic Acid | - |
| D-Raffinose | / | L-Aspartic Acid | + | Formic Acid | - |
| α-D-Lactose | - | L-Glutamic Acid | + | pH 6 | + |
| D-Melibiose | / | L-Histidine | - | pH 5 | + |
| β-Methyl-D- Glucoside | / | L-Pyroglutamic  Acid | / | 1% NaCl | + |
| D-Salicin | / | L-Serine | + | 4% NaCl | + |
| N-Acetyl-D- Glucosamine | + | Pectin | + | 8% NaCl | + |
| N-Acetyl-β-DM  annosamine | - | D-Galacturonic  Acid | / | 1% Sodium Lactate | + |
| N-Acetyl-D-Gal  actosamine | - | L-Galactonic  Acid Lactone | - | Fusidic Acid | - |
| N-Acetyl  Neuraminic Acid | - | D-Gluconic  Acid | / | D- Serine | - |
| α-D-Glucose | / | D-Glucuronic  Acid | / | Troleandomycin | - |
| D-Mannose | / | Glucuronamide | / | Rifamycin SV | - |
| D-Fructose | + | Mucic Acid | - | Minocycline | - |
| D-Galactose | / | Quinic Acid | + | Lincomycin | - |
| 3-Methyl Glucose | - | D-Saccharic Acid | - | Guanidine HCl | + |
| D-Fucose | - | p-Hydroxy Phenylacetic Acid | - | Niaproof 4 | - |
| L-Fucose | - | Methyl Pyruvate | / | Vancomycin | - |
| L-Rhamnose | - | D-Lactic Acid  Methyl Ester | - | Tetrazolium Violet | - |
| Inosine | / | L-Lactic Acid | / | Tetrazolium Blue | / |
| D-Sorbitol | - | Citric Acid | + | Nalidixic Acid | / |
| D-Mannitol | + | α-Keto-Glutaric Acid | - | Lithium Chloride | + |
| D-Arabitol | - | D-Malic Acid | / | Potassium Tellurite | + |
| Aztreonam | + | Sodium Butyrate | + | Sodium Bromate | / |

Note: +, positive reaction; -, negative reaction; /, borderline.