**Table S1:** Preparation of cellulase assay medium (1000mL)

|  |  |
| --- | --- |
| Reagent | Dosage |
| Carboxymethylcellulose | 1% (w/v) |
| Yeast extract | 0.5% (w/v) |
| NH4SO4 | 0.1% (w/v) |
| Glycerol | 0.2% (v/v) |
| MgSO4 | 0.01% (w/v) |
| 50 × Phosphate Buffer (350g K2HPO4+100gKH2PO4+1LdH2O, pH6.9-7.1) | 2% (v/v) |
| Bacterial agar | 1.6% (w/v) |

Note: Pure water was used as the solvent. Sterilization was carried out at 121℃ for 20min.

**Table S2:** Preparation of pectinase assay medium (1000mL)

|  |  |
| --- | --- |
| Reagent | Dosage |
| Yeast extract | 0.1% (w/v) |
| NH4SO4 | 0.1% (w/v) |
| Glycerol | 0.5% (v/v) |
| MgSO4 | 1mM (0.12g/L) |
| Polygalacturonic acid (sodium salt) | 0.5% (w/v) |
| Phosphate Buffer (15g Na2HPO4+0.7gNaH2PO4·H2O+1LH2O,pH8.0） | 20% (v/v) |
| Bacterial agar | 1.6% (w/v) |

Note: Pure water was used as the solvent. Sterilization was carried out at 121℃ for 20min.

**Table S3:** Preparation of protease assay medium (1000mL)

|  |  |
| --- | --- |
| Reagent | Dosage |
| Yeast extract | 1% (w/v) |
| skim milk | 1% (w/v) |
| Bacterial agar | 1.6% (w/v) |

Note: Pure water was used as the solvent. Sterilization was carried out at 121℃ for 20min.

**Table S4:** Results of extracellular enzyme assays

|  |  |  |
| --- | --- | --- |
| Tested strains | Average hydrolytic circle diameter of pectinase assay/mm | Standard deviation |
| Sichuan144 | 3.99 | 0.94 |
| Sichuan106 | 3.77 | 0.19 |
| Sichuan62 | 2.77 | 0.38 |
| Sichuan126 | 2.03 | 0.30 |
| Sichuan51 | 1.99 | 0.08 |
| Sichuan43 | 1.44 | 0.18 |
| Sichuan66 | 1.20 | 0.62 |
|  |  |  |
| Tested strains | Average hydrolytic circle diameter of protease assay assay/mm | Standard deviation |
| Sichuan106 | 8.84 | 0.95 |
| Sichuan51 | 7.29 | 1.06 |
| Sichuan126 | 6.90 | 0.57 |
| Sichuan62 | 6.54 | 0.61 |
| Sichuan144 | 6.44 | 2.26 |
| Sichuan66 | 1.10 | 0.37 |
| Sichuan43 | 0.18 | 0.15 |
|  |  |  |
| Tested strains | Average hydrolytic circle diameter of cellulase assay/mm | Standard deviation |
| Sichuan51 | 3.01 | 0.89 |
| Sichuan106 | 2.86 | 0.55 |
| Sichuan43 | 2.82 | 0.57 |
| Sichuan66 | 2.79 | 0.49 |
| Sichuan144 | 2.71 | 0.39 |
| Sichuan62 | 2.14 | 0.11 |
| Sichuan126 | 1.83 | 0.53 |

**Table S5:** All results of the biochemical reactions of the Mérieux automatic identifier VITEK

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Items | Tested strains | | | | | | |
| Sichuan  43 | Sichuan  51 | Sichuan  62 | Sichuan  66 | Sichuan  106 | Sichuan  126 | Sichuan  144 |
| Alanine-phenylalanine proline aromatase  (APPA) | − | − | − | − | − | − | − |
| Adonitol  (ADO) | + | + | + | + | + | + | + |
| 1. pyrrolidone aromatase   (PyrA) | + | + | + | + | + | + | + |
| L-arabinol  (IARL) | − | − | − | − | − | − | − |
| 1. Cellobiose   (dCEL) | + | + | + | + | + | + | + |
| β-Galactosidase  (BGAL) | + | + | + | + | + | + | + |
| Generation of H2S  (H2S) | − | − | − | − | − | − | − |
| β-N-acetylamino glucosidase  (BNAG) | − | − | − | − | − | − | − |
| Glutamyl araminase pNA  (AGLTp) | − | − | − | − | − | − | − |
| D-Glucose  (dGLU) | + | + | + | + | + | + | + |
| γ-Glutamyltransferase  (GGT) | + | + | + | + | + | + | + |
| Oxidative fermentation of glucose  (OFF) | + | + | + | + | + | + | + |
| β-Glucosidase  (BGLU) | + | + | + | + | + | + | + |
| D-Maltose  (dMAL) | + | + | + | + | + | + | + |
| D-Mannitol  (dMAN) | + | + | + | + | + | + | + |
| D-Mannose  (dMNE) | + | + | + | + | + | + | + |
| β-Xylosidase  (BXYL) | + | + | + | + | + | + | + |
| β-alanine aromatase pNA  (BAIap) | − | − | − | − | − | − | − |
|
|
| L-proline arylaminase  (ProA) | + | + | + | + | + | + | + |
| Lipase  (LIP) | − | − | − | − | − | − | − |
| Tyrosine aromatase  (TyrA) | + | + | + | + | + | + | + |
| Urease  (URE) | + | + | + | + | + | + | + |
| D-Sorbitol  (dSOR) | + | + | + | + | + | + | + |
| α-Glucosidase  (AGLU) | − | − | − | − | − | − | − |
| Succinate alkalinization  (SUCT) | + | + | + | + | + | + | + |
| β-N-acetylgalactosidase  (NAGA) | − | − | − | − | − | − | − |
| α-Galactosidase  (AGAL) | + | + | + | + | + | + | + |
| Phosphatase  (PHOS) | + | + | + | + | + | + | + |
| Glycine aromatase  (GlyA) | − | − | − | − | − | − | − |
| Ornithine decarboxylase  (ODC) | − | − | − | − | − | − | − |
| Lysine decarboxylase  (LDC) | + | + | + | + | + | + | + |
| L-histidine assimilation  (IHISa) | + | + | + | + | + | + | + |
| Coumaric acid  (CMT) | − | − | − | − | − | − | − |
| β-Glucuronidase  (BGUR ) | − | − | − | − | − | − | − |
| O/129 drug resistance  (O129R) | + | + | + | + | + | + | + |
| Glutamate-glycine-arginine aromatase  (GGAA) | − | − | − | − | − | − | − |
|
|
|
| L-malate assimilation  (IMLTa) | + | + | + | + | + | + | + |
| ELLMAN  (ELLM) | − | − | − | − | − | − | − |
| L-lactate assimilation  (ILATa) | + | + | + | + | + | + | + |