

| Taxonomic group                     | Xylose pathway |          |      | Xylose transporter |      | Regulators           |                         |                       | Xyloside transport and degradation |      |       |                      |                      |
|-------------------------------------|----------------|----------|------|--------------------|------|----------------------|-------------------------|-----------------------|------------------------------------|------|-------|----------------------|----------------------|
| Organism                            | XylA-I         | XylA-II* | XylB | XylFGH             | XylT | XylIR <sup>ROK</sup> | XylIR <sup>Lact</sup> * | XylIR <sup>AraC</sup> | XynB                               | XylS | XynT* | Xyn <sup>ABC</sup> * | Xyn <sup>PTS</sup> * |
| <b>Clostridiales (5/16)</b>         |                |          |      |                    |      |                      |                         |                       |                                    |      |       |                      |                      |
| <i>Clostridium acetobutylicum</i>   |                | ⊕        | ⊕    |                    | +    | ⊕                    |                         |                       | ⊕                                  | +    | ⊕     |                      |                      |
| <i>Clostridium beijerinckii</i>     | ⊕              | ⊕        | ⊕    | ⊕                  | ⊕    | ⊕                    |                         | +                     | +                                  | +    | +     | +                    |                      |
| <i>Clostridium difficile</i>        | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       | +                                  | ⊕    | +     |                      | ⊕                    |
| <i>Clostridium phytofermentans</i>  | ⊕              | ⊕        | ⊕    |                    |      | ⊕                    |                         |                       | ⊕                                  | +    |       | +                    |                      |
| <i>Alkaliphilus metalliredigens</i> | ⊕              |          | ⊕    | ⊕                  |      | ⊕                    |                         |                       |                                    |      |       |                      |                      |
| <b>Thermoanaerobacterales (4/6)</b> |                |          |      |                    |      |                      |                         |                       |                                    |      |       |                      |                      |
| <i>Moorella thermoacetica</i>       | +              |          | +    | +                  |      |                      | +                       |                       |                                    |      |       |                      |                      |
| <i>Thermoanaerobacter sp.X514</i>   | ⊕              |          | ⊕    | ⊕                  |      | +                    |                         |                       |                                    |      |       |                      |                      |
| <i>T. pseudethanolicus</i>          | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       | ⊕                                  |      |       | ⊕                    |                      |
| <i>C. saccharolyticus</i>           |                | +        | +    | +                  |      | ⊕                    |                         |                       | +                                  | +    |       | ⊕                    |                      |
| <b>Lactobacillales (6/41)</b>       |                |          |      |                    |      |                      |                         |                       |                                    |      |       |                      |                      |
| <i>Lactococcus lactis</i> Il1403    | +              |          | +    |                    | +    |                      |                         | +                     | +                                  |      | +     |                      |                      |
| <i>Lactococcus lactis</i> cremoris  | +              |          | +    |                    |      |                      |                         | +                     | +                                  |      |       |                      |                      |
| <i>Leuconostoc mesenteroides</i>    | ⊕              |          | ⊕    |                    | ⊕    | ⊕                    |                         |                       | +                                  | +    | +     |                      |                      |
| <i>Pediococcus pentosaceus</i>      | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       |                                    | ⊕    | ⊕     |                      |                      |
| <i>Lactobacillus brevis</i>         | ⊕              |          | ⊕    |                    | ⊕    | ⊕                    |                         |                       | ⊕                                  | ⊕    | ⊕     | ⊕                    |                      |
| <i>Enterococcus faecalis</i>        | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       |                                    | ⊕    |       |                      | ⊕                    |
| <b>Bacillales (9/57)</b>            |                |          |      |                    |      |                      |                         |                       |                                    |      |       |                      |                      |
| <i>Listeria welshimeri</i> serovar  | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       |                                    | ⊕    | ⊕     |                      |                      |
| <i>Oceanobacillus iheyensis</i>     | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       | ⊕                                  |      |       | ⊕                    |                      |
| <i>G. thermodenitrificans</i>       | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       | ⊕                                  |      |       | ⊕                    |                      |
| <i>Geobacillus kaustophilus</i>     | ⊕              |          | ⊕    | ⊕                  |      | ⊕                    |                         |                       |                                    |      |       |                      |                      |
| <i>Bacillus clausii</i>             | ⊕              |          | ⊕    | ⊕                  |      | +                    |                         |                       | +                                  |      |       |                      |                      |
| <i>Bacillus cereus</i>              | ⊕              |          | ⊕    |                    | ⊕    | ⊕                    |                         |                       |                                    |      |       |                      |                      |
| <i>Bacillus halodurans</i>          | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       | ⊕                                  |      |       | ⊕                    |                      |
| <i>Bacillus licheniformis</i>       | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       | +                                  | ⊕    |       | ⊕                    |                      |
| <i>Bacillus subtilis</i>            | ⊕              |          | ⊕    |                    |      | ⊕                    |                         |                       | ⊕                                  |      | ⊕     |                      |                      |