**Supplementary data 1.** The physiological and biochemical characteristics of the selected isolates

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test** | ***L. acidophilus*** | ***L. reuteri*** | ***L. casei*** | ***B. longum*** | ***B. coagulans*** |
| Growth at 15ºC | - | + | + | - | + |
| Growth at 45ºC | - | + | + | - | + |
| VP | - | + | - | - | + |
| Nitrate reduction | - | - | - | - | - |
| Gas production from  Glucose | - | + | + | - | - |
| Resistance to bile salts | + | + | + | + | + |
| Motility | - | - | - | - | + |
| Catalyze | - | - | - | - | + |
| Oxidase | - |  |  | - | - |
| Arabinose | + | + | - | + | + |
| Inositol | - | - | - | - | - |
| Inulin | - | - | - | - | - |
| Raffinose | + | - | - | + | - |
| Rhamnose | - | - | - | - | - |
| Cellobiose | + | - | + | - | + |
| Sorbose | - | - | - | - | - |
| Glucose | + | + | + | + | + |
| Sorbitol | + | - | + | - | - |
| Fructose | + | - | + | + | + |
| Galactose | - | - | + | + | + |
| Cellulose | - | + | - | - | - |
| Lactose | - | + | + | + | - |
| Mannose | + | - | + | - | + |
| Mannitol | + | - | + | - | + |
| Melezitose | + | - | + | - | + |
| Melibiose | - | + | + | + | - |
| Maltose | + | + | + | + | + |
| Ribose | + | + | + | + | + |
| Sucrose | + | + | + | + | + |
| Trehalose | + | - | + | - | - |
| Xylose | - | + | - | + | - |
|  |  |  |  |  |  |