Bifidobacterium bifidum Bg41221_3D10 No substrate D-glucose (Glc) D-fructose (Fru) D-mannose (Man) D-xylose (Xyl) 1.5 1.0 0.5 0.0 1.5 1.0 0.5 0.0 1.5 1.0 0.5 0.0 Maltose (Mal) Cellobiose (BgIOS) 1.5 1.0 0.5 OD600 1.5 1.0 0.5 0.0 1.5 1.0 0.5 0.0 Lacto-N-tetraose (LNT) Lacto-N-neotetraose (LNnT) 2'-fucosyllactose (2'FL) 3'-sialyllactose (SHMO) 6'-sialyllactose (SHMO) Potato soluble starch (ST) 1.5 1.0 0.5 0.0 Pullulan (PUL) 1.5 1.0 0.5

30

10 20

40 0

Time (h)

10

20

30

40 0

10 20 30

20

0.0

10 20

20 30