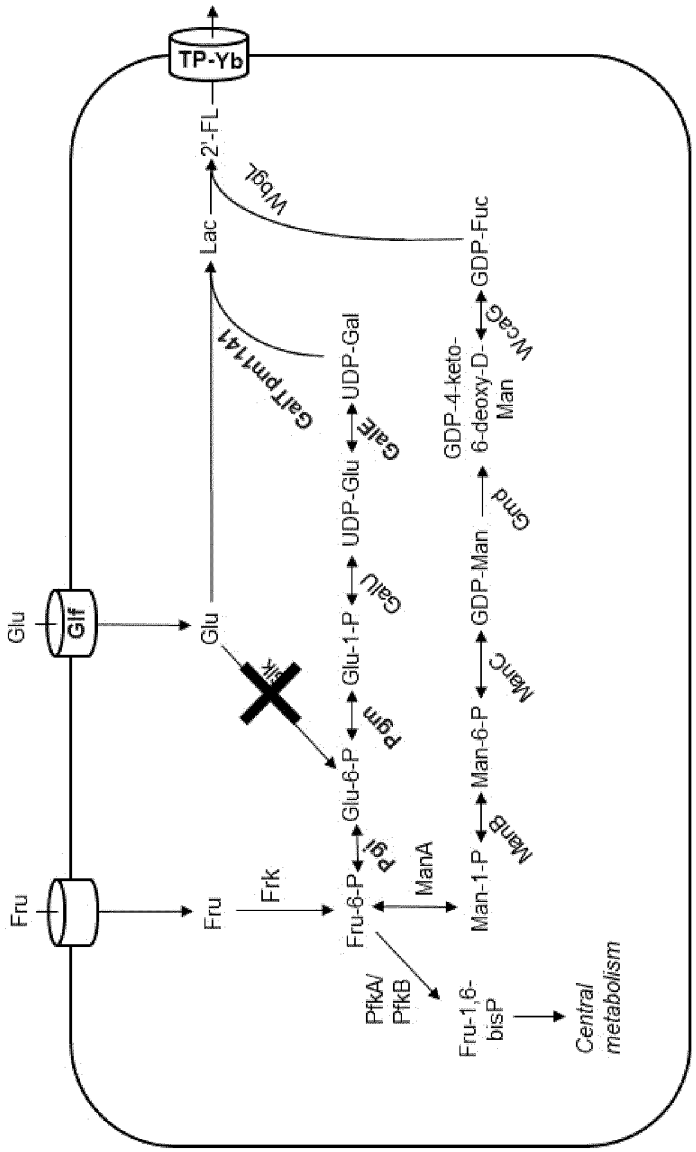

TP-Yb
2'-FL
Lac
WbgL
GDP-Fuc
WcaG
GDP-4-keto-6-deoxy-D-Man
GalTpm1141
GalE
UDP-Gal
UDP-Glu
GalU
Glu-1-P
Pgm
Glu-6-P
Pgi
Fru-6-P
ManA
Man-1-P
ManB
Man-6-P
ManC
GDP-Man
Gmd
Glf
Glu
Glu
Frk
Fru
Fru
PfkA/PfkB
Fru-1,6-bisP
Central metabolism

Fig. 1

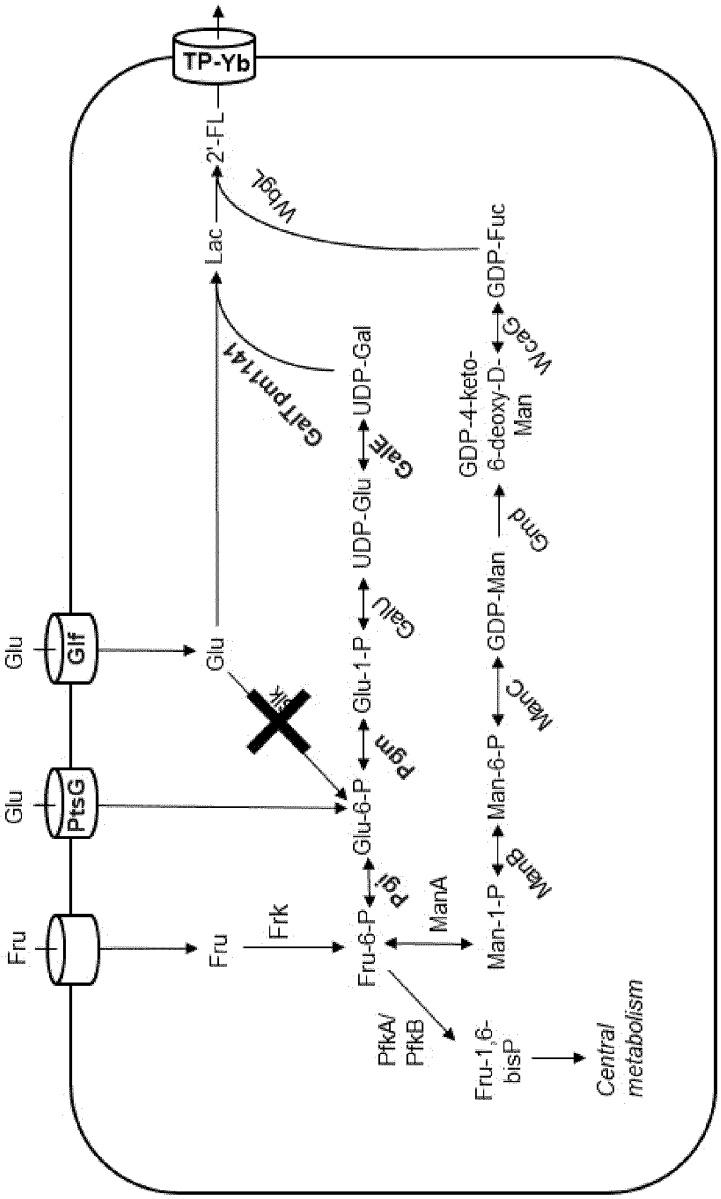

TP-Yb
2'-FL
Lac
WbgL
GalTpm1141
UDP-Gal
GalE
UDP-Glu
GalU
Glu-1-P
Pgm
Glu-6-P
Pgi
Fru-6-P
ManA
Man-1-P
ManB
Man-6-P
ManC
GDP-Man
Gmd
GDP-4-keto-6-deoxy-D-Man
WcaG
GDP-Fuc
Glf
PtsG
Frk
PfkA/PfkB
Fru-1,6-bisP
Central metabolism
Glu
Fru

Fig. 2

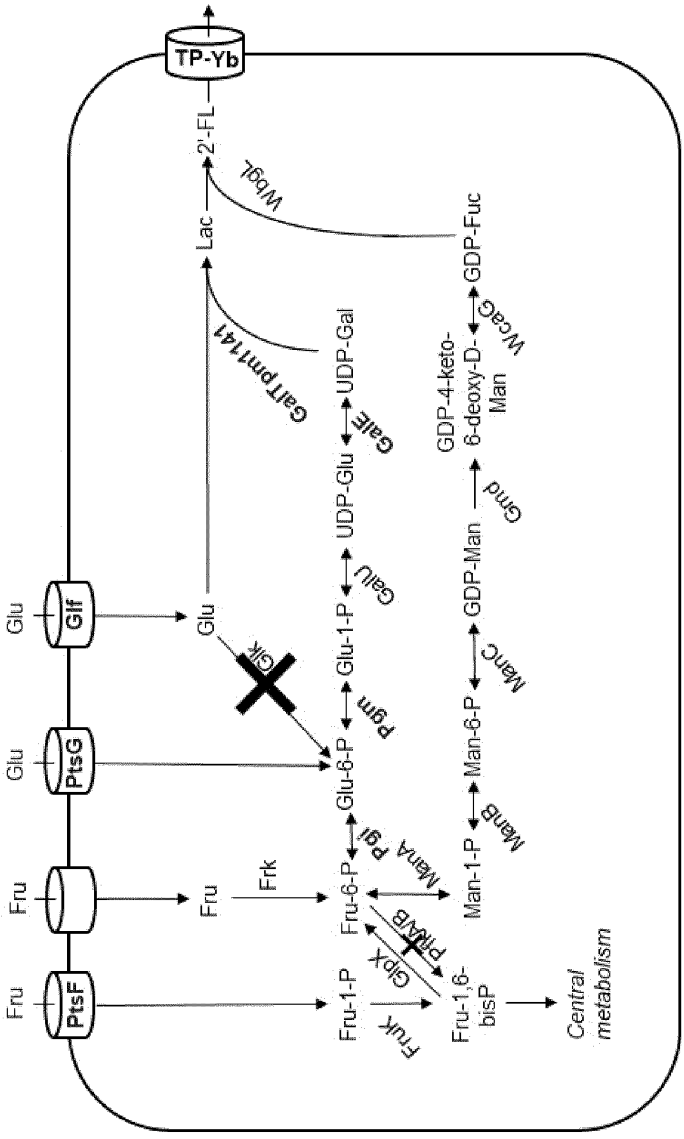

TP-Yb
2'-FL
Lac
Wbgl
GalTpm1141
Glu
Glf
Glu
PtsG
Fru
Fru
PtsF
Glk
Frk
UDP-Gal
GalE
UDP-Glu
GalU
Glu-1-P
Pgm
Glu-6-P
Pgi
Fru-6-P
Fru-1-P
GpX
PfkAB
FruK
Fru-1,6-bisP
Central metabolism
GDP-Fuc
WcaG
GDP-4-keto-6-deoxy-D-Man
Gmd
GDP-Man
ManC
Man-6-P
ManB
Man-1-P
ManA

Fig. 3

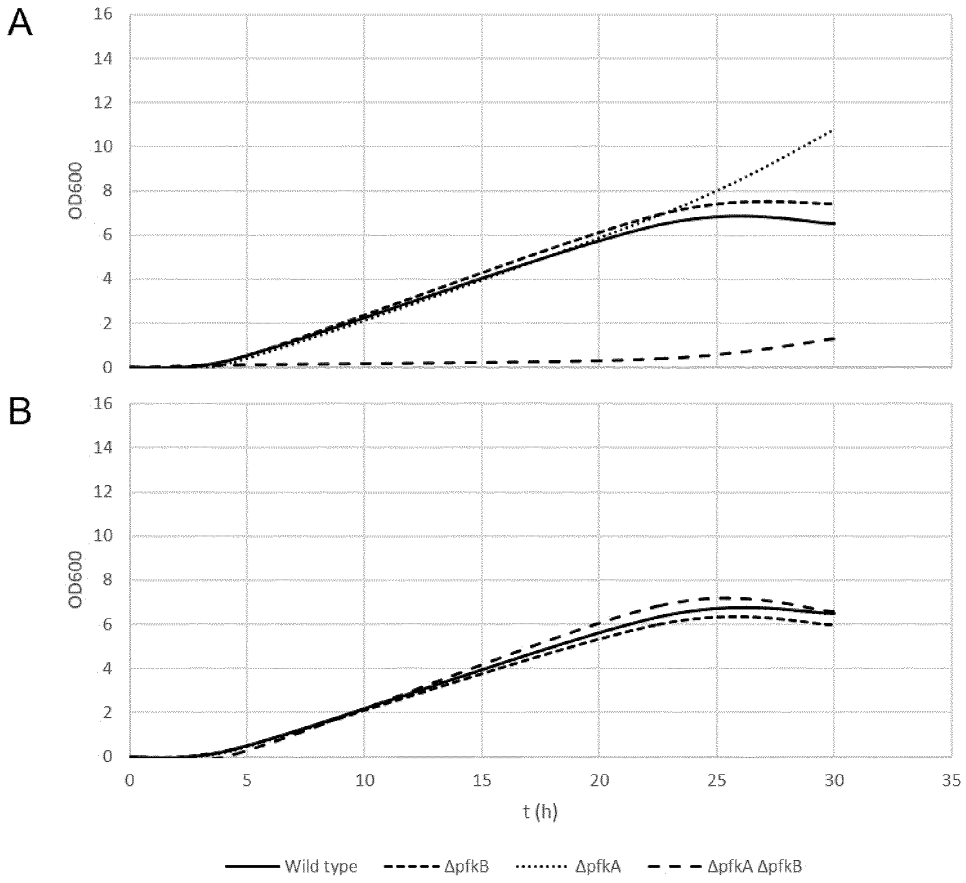

A
B
OD600
OD600
0
2
4
6
8
10
12
14
16
0
5
10
15
20
25
30
35
t (h)
Wild type
ΔpfkB
ΔpfkA
ΔpfkA ΔpfkB

Fig. 4