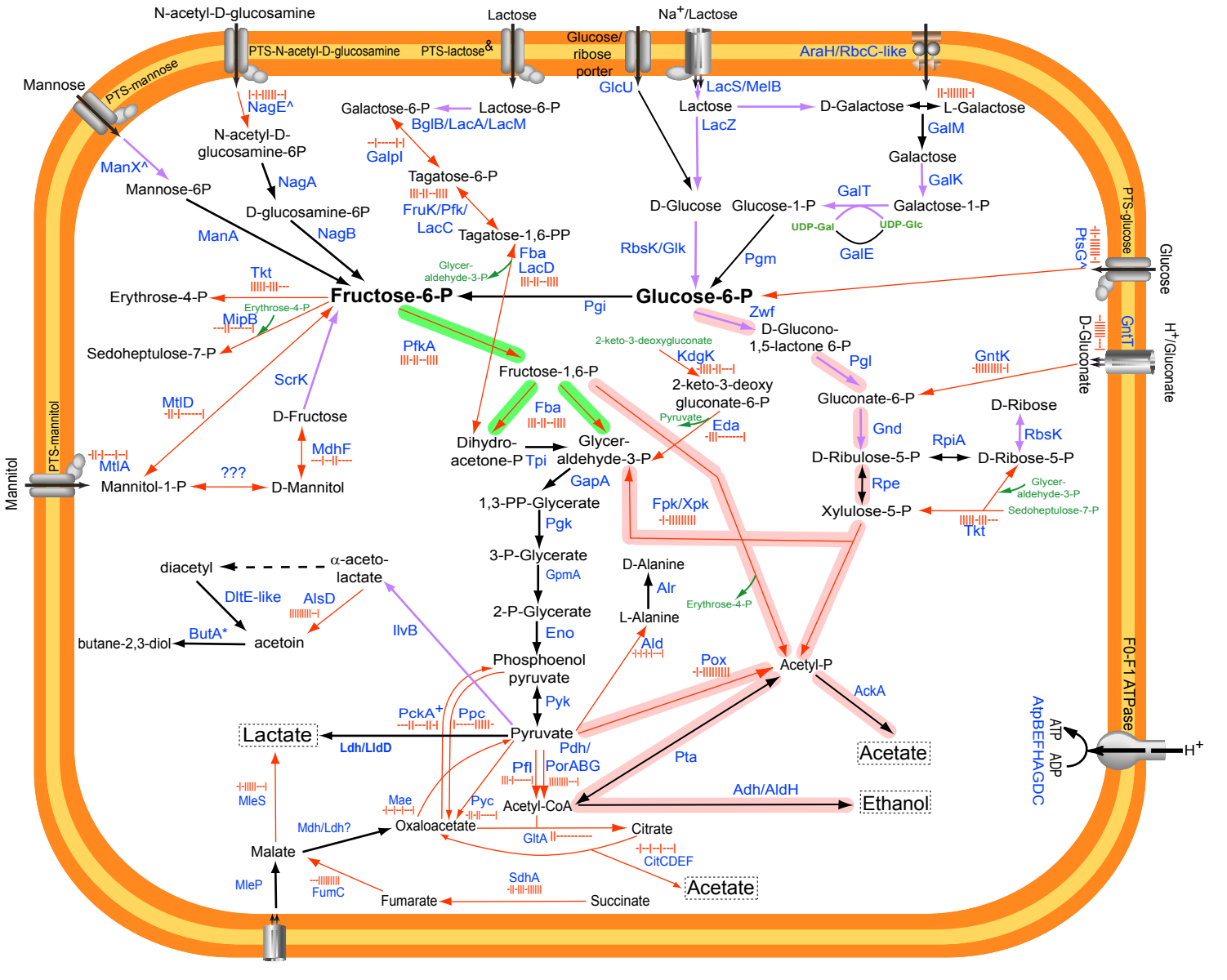
N-acetyl-D-glucosamine
Lactose
Na+/Lactose
PTS-N-acetyl-D-glucosamine
PTS-lactose&
Glucose/ ribose porter
AraH/RbcC-like
Mannose
PTS-mannose
NagE^
GlcU
LacS/MelB
Galactose-6-P
Lactose-6-P
BglB/LacA/LacM
Lactose
D-Galactose
L-Galactose
LacZ
GalM
N-acetyl-D-glucosamine-6P
Galactose
GalK
ManX^
NagA
Galpl
Tagatose-6-P
Mannose-6P
D-glucosamine-6P
FruK/Pfk/ LacC
D-Glucose
Glucose-1-P
GalT
Galactose-1-P
UDP-Gal
UDP-Glc
GalE
ManA
NagB
Tagatose-1,6-PP
Fba
LacD
RbsK/Glk
Pgm
PtsG^
PTS-glucose
Glucose
Glycer-aldehyde-3-P
Tkt
Erythrose-4-P
Fructose-6-P
Glucose-6-P
Pgi
Zwf
MipB
Sedoheptulose-7-P
PfkA
D-Glucono-1,5-lactone 6-P
GntT
H+/Gluconate
D-Gluconate
2-keto-3-deoxygluconate
KdgK
Fructose-1,6-P
Pgl
GntK
ScrK
2-keto-3-deoxy gluconate-6-P
Gluconate-6-P
D-Ribose
MtlD
D-Fructose
Fba
Pyruvate
Eda
Gnd
RbsK
PTS-mannitol
Mannitol
MdhF
Dihydro-acetone-P
Tpi
Glycer-aldehyde-3-P
RpiA
D-Ribulose-5-P
D-Ribose-5-P
MtlA
???
Mannitol-1-P
D-Mannitol
GapA
Rpe
Fpk/Xpk
Xylulose-5-P
1,3-PP-Glycerate
Pgk
Tkt
3-P-Glycerate
diacetyl
α-aceto-lactate
GpmA
D-Alanine
DltE-like
AlsD
Alr
2-P-Glycerate
L-Alanine
butane-2,3-diol
ButA*
acetoin
IlvB
Eno
Ald
Phosphoenol pyruvate
Pox
Acetyl-P
Pyk
AckA
PckA+
Ppc
Lactate
Ldh/LldD
Pyruvate
Pdh/ PorABG
Acetate
Pta
Pfl
Mae
Pyc
Acetyl-CoA
Adh/AldH
Ethanol
MleS
Mdh/Ldh?
Oxaloacetate
Citrate
GltA
Malate
CitCDEF
MleP
FumC
SdhA
Acetate
Fumarate
Succinate
F0-F1 ATPase
AtpBEFHAGDC
ATP
ADP
H+