

Table S4. Maximum and minimum flux values obtained from flux variability analysis (FVA) corresponding to the simulation condition in Figure 4D. FVA was performed in the WP3 wild type model and the Δ pta, Δ ackA, and Δ pta Δ ackA mutant models with biomass production set to its maximum (Materials and Methods). Numbers in this table indicated raw values of the minimum and maximum fluxes before they were normalized by the biomass flux.

Function	WT		Δ pta		Δ ackA		Δ pta Δ ackA	
	Min	Max	Min	Max	Min	Max	Min	Max
ATPase	1.72	1.72	0.46	0.59	0.20	0.20	0.20	0.20
Fdh	10.05	10.05	6.30	6.49	2.66	18.06	2.66	18.06
Ndh	7.11	7.11	9.92	9.92	2.53	75.85	2.53	75.85
Pta	6.35	6.35	0.00	0.00	0.00	0.00	0.00	0.00
AckA	12.45	12.45	12.97	13.03	0.00	0.00	0.00	0.00
Pyk	6.26	6.26	6.18	6.31	3.29	8.42	3.29	8.42
Xpk	6.09	6.09	12.97	13.03	0.00	0.00	0.00	0.00
Biomass	0.54	0.54	0.52	0.52	0.23	0.23	0.23	0.23