

Table S7. Summary of phenotypic values, variability thresholds and distribution of V_A/V_G ratios for the glycolysis model [20]. The first three columns list the phenotype abbreviations used in this study, a text description of the phenotypes and their units. The thresholds used to filter out dataset with very low relative and/or absolute variability are listed in the next two columns, followed by the number of Monte Carlo simulations (out of 1000) passing the threshold. The last 7 columns contain quantiles and means of the V_A/V_G values for the datasets passing the variability threshold.

Phenotype	Description	Units	Variability threshold		# of valid datasets	Quantiles and mean values of V_A/V_G						
			rel.	abs.		Q _{0.05}	Q _{0.1}	Q _{0.2}	Q _{0.3}	Q _{0.5}	Q _{0.8}	mean
ACE	Steady state concentration (SSC) of acetaldehyde	mM	0.01	1e-4	728	0.90	0.94	0.98	0.99	1	1	0.98
BPG	SSC of bisphosphoglycerate	mM	0.01	1e-4	478	0.67	0.72	0.81	0.90	0.96	0.98	0.90
F16P	SSC of fructose-1,6-bisphosphate	mM	0.01	1e-4	934	0.75	0.87	0.94	0.96	0.98	1	0.95
F6P	SSC of fructose 6-phosphate	mM	0.01	1e-4	908	0.83	0.89	0.95	0.96	0.98	1	0.96
G6P	SSC of glucose 6-phosphate	mM	0.01	1e-4	922	0.84	0.90	0.95	0.96	0.98	1	0.96
GLCi	SSC of internal glucose in cell	mM	0.01	1e-4	794	0.68	0.81	0.91	0.95	0.99	1	0.93
NADH	SSC of nicotinamide adenine dinucleotide	mM	0.01	1e-4	710	0.88	0.93	0.97	0.98	0.99	1	0.97
P	SSC of phosphates in adenine nucleotides	mM	0.01	1e-4	665	0.88	0.93	0.97	0.99	1	1	0.97
P2G	SSC of 2- phosphoglycerate	mM	0.01	1e-4	896	0.73	0.82	0.93	0.96	0.98	1	0.94
P3G	SSC of 3-phosphoglycerate	mM	0.01	1e-4	919	0.73	0.83	0.93	0.96	0.98	1	0.95
PEP	SSC of phosphoenolpyruvate	mM	0.01	1e-4	886	0.71	0.80	0.92	0.96	0.98	1	0.94
PYR	SSC of pyruvate	mM	0.01	1e-4	788	0.68	0.79	0.91	0.95	0.99	1	0.94
TRIO	SSC of trio-phosphate	mM	0.01	1e-4	851	0.77	0.88	0.95	0.97	0.99	1	0.96