Table 3
Glycolytic flux and intermediary concentrations obtained *in vivo* (cells) and by *in silico* modeling for AS-30D cells.

Metabolite	5 mM glucose		1 mM glucose[c]	
	In vivo[a]	Model	*In vivo*[b]	Model
Glu_{in}	6.2 ± 1	3.4	NM	0.8
G6P	5.3 ± 2.6	6.5	2 ± 0.5 (4)	3.0
F6P	1.5 ± 0.7	0.03	0.7 ± 0.2 (4)	0.016
FBP	25 ± 7.6	5.2	0.6 ± 0.3 (3)	0.36
DHAP	10 ± 2.3	14	1 ± 0.3 (3)	4.0
G3P	0.9 ± 0.4	0.3	0.38 (2)	0.09
1,3BPG	ND	0.01	NM	0.002
3PG	ND	0.01	NM	0.005
2PG	ND	0.04	NM	0.016
PEP	0.1 ± 0.02	0.003	NM	0.001
Pyr	2.1 ± 1	0.84	0.72 (2)	0.78
lactate	27 ± 11	Fixed	NM	Fixed
F2,6BP ($\times 10^{-3}$)	6 ± 1(3)[b]	Fixed	NM	Fixed
citrate	1.7 ± 0.7	Fixed	NM	Fixed
ATP	5.6 ± 1.2	7.9	6 (2)	4.9
ADP	2.4 ± 0.7	2.1	1.5 (2)	2.9
AMP	3.3 ± 1.4	1.3	NM	3.9
Pi	4.8 ± 1.9 (3)[b]	Fixed[d]	5 (1)[b]	Fixed[d]
NADH	NM	0.005	NM	0.005
NAD^+	1.3 ± 0.5 (4)[b]	1.34	NM	1.34
Glycolytic flux	21 ± 9	29	10.5 (2)	14

Metabolite concentrations in mM; flux in nmol lactate min^{-1} (mg cellular protein)$^{-1}$. Values taken from [a][10]. [b]This study. [c]In the model, when this condition was simulated, Glu_{out} concentration and glycogen synthesis flux were fixed at values of 1 mM and 1 nmol min^{-1} (mg of cellular protein)$^{-1}$, respectively. [d]53% of the total Pi concentration shown was assumed to be free Pi [22] which was used for pathway modeling. Figures in parentheses indicate number of independent cellular extracts assayed. NM, not measured; ND, not detected. Fixed values in the model were at those experimentally determined in cells.