

A549 +LKB1	Flux	95% confidence interval	
Pathway/Reaction	(pmol/μg/min)	Lower bound	Upper bound
Glycolysis			
Glc.x -> Glc	41.54	41.04	42.04
Glc -> G6P	41.54	41.04	42.04
G6P <-> F6P	17.42	9.423	25.41
G6P <-> F6P	60	0	Inf
F6P -> DHAP + GAP	33.5	30.92	37.18
DHAP <-> GAP	33.5	30.92	37.18
DHAP <-> GAP	0.006575	0	Inf
GAP <-> 3PG	75.04	72.5	78.67
GAP <-> 3PG	0.1421	0	Inf
3PG -> Ser	4.48E-05	2.24E-05	0.2016
Ser <-> Gly + MEETHF	-1.11E-16	-1.11E-16	-1.11E-16
Ser <-> Gly + MEETHF	0.4307	0	Inf
3PG -> Pyr.c	75.04	72.47	78.67
Pyr.c <-> Lac	68.89	66.48	71.42
Pyr.c <-> Lac	1.00E-07	0	Inf
Lac -> Lac.x	68.89	66.48	71.42
Pyr.c <-> Ala.c	6.00E-05	3.00E-05	0.2701
Pyr.c <-> Ala.c	0.2339	0	Inf
Pyr.c -> Pyr.x	5.3	5.3	5.3
Pentose Phosphate Pathway			
G6P -> P5P + CO2	24.12	15.96	32.42
P5P + P5P <-> S7P + GAP	8.042	4.15	10.87
P5P + P5P <-> S7P + GAP	1.01E-07	0	Inf
S7P + GAP <-> F6P + E4P	8.042	4.15	10.87
S7P + GAP <-> F6P + E4P	0.007718	0	Inf
P5P + E4P <-> F6P + GAP	8.042	4.15	10.87
P5P + E4P <-> F6P + GAP	1.00E-07	0	Inf
Anaplerotic reactions			
Pyr.m <-> Ala.m	1.67E-16	1.67E-16	1.67E-16
Pyr.m <-> Ala.m	0.09534	0	Inf
Pyr.m + CO2 -> Oac.m	0.2248	0.1726	0.3552
Mal.m -> Pyr.m + CO2	0.09004	0.01478	0.1904
Mal.c -> Pyr.c + CO2	1.983	1.571	2.137
Pyr.m -> AcCoA.m + CO2	2.696	2.586	2.962
Gln <-> Glu	3.807	3.643	3.917
Gln <-> Glu	0.02998	0	0.2717
Glu <-> Akg	1.848	1.579	1.961
Glu <-> Akg	7.57E+04	72.69	Inf
Pyr.c -> Pyr.m	2.83	2.71	2.955
Gln.x -> Gln	3.807	3.697	3.968
Glu -> Glu.x	1.959	1.931	1.987
TCA Cycle			
AcCoA.m + Oac.m -> Cit	2.86	2.745	3.009
Cit <-> Akg + CO2	2.818	2.653	3.117
Cit <-> Akg + CO2	0.3076	0.2181	0.4354
Akg -> Suc + CO2	4.666	4.201	4.895
Suc <-> Fum.m	4.666	4.201	4.895
Suc <-> Fum.m	1.00E-07	0	Inf
Fum.m <-> Mal.m	4.666	4.201	4.895
Fum.m <-> Mal.m	1259	3.298	Inf
Mal.m <-> Oac.m	2.635	2.408	2.801
Mal.m <-> Oac.m	18.77	4.486	Inf
Oac.m <-> Asp.m	-1.07E-06	-0.2414	0.01772
Oac.m <-> Asp.m	1.00E-07	0	Inf
Biomass and Fatty acid synthesis and oxidation			
Cit -> AcCoA.c + Oac.c	0.04174	0.02493	0.1889
AcCoA.c + AcCoA.c + AcCoA.c + AcCoA.c + AcCoA.c	0.005213	0.001789	0.007397
+ AcCoA.c + AcCoA.c + AcCoA.c -> Palm.s	0.007735	0.002931	0.01265
Palm.d -> Palm.s	0.007566	0.003597	0.01046

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Biomass and Fatty acid synthesis and oxidation (cont.)			
Palm.s -> AcCoA.m + AcCoA.m + AcCoA.m + AcCoA.m + AcCoA.m + AcCoA.m + AcCoA.m + AcCoA.m	0.02051	0.01462	0.02844
0*Palm.s -> Palm.mnt	0.02283	0	Inf
0*Palm.s -> Palm.isa	0.6926	0.6333	0.7518
0*Palm.x -> Palm.isa	0.3074	0	0.3667
0*Palm.d -> Palm.isa	1.00E-07	0	0.3667
Palm.isa -> Palm.fix	1	1	1
113*Asp.c + 386*Glu + 600*Ala.c + 448*Ser + 658*Gly + 322*Gln + 0.133*Palm.s + 324*AcCoA.c + 233*P5P -> Biomass	1.00E-07	5.00E-08	4.50E-04
Cytosolic			
Oac.c <-> Mal.c	0.03527	-0.4643	0.07229
Oac.c <-> Mal.c	1.00E-07	0	0.02172
Oac.c <-> Asp.c	0.006466	-0.01224	0.1888
Oac.c <-> Asp.c	0.2495	0	Inf
Asp.c -> Fum.c	0.006453	6.20E-05	0.1382
Mal.c <-> Fum.c	-0.006453	-0.1382	-6.20E-05
Mal.c <-> Fum.c	1.00E-07	0	0.02184
Mal.c <-> Mal.m	-1.941	-2.193	-0.7952
Mal.c <-> Mal.m	1.00E-07	0	Inf
Asp.m <-> Asp.c	-1.07E-06	-0.2414	0.01772
Asp.m <-> Asp.c	1.00E-07	0	Inf
Dilution/Mixing			
Gly.d -> Gly	6.58E-05	3.29E-05	0.2962
0*Pyr.c -> Pyr.mnt	1.00E-07	5.00E-08	0.8657
0*Pyr.m -> Pyr.mnt	1	0.1343	1
0*Mal.c -> Mal.mnt	0.9999	5.00E-08	1
0*Mal.m -> Mal.mnt	9.62E-05	0	1
0*Asp.c -> Asp.mnt	1	0.004741	1
0*Asp.m -> Asp.mnt	1.66E-07	0	0.9953
0*Fum.m -> Fum.mnt	1.00E-07	5.00E-08	0.3173
0*Fum.c -> Fum.mnt	1	0.6827	1
Suc.d -> Suc.mnt	1.00E-07	5.00E-08	0.06792
0*Suc -> Suc.mnt	1	0.9321	1
0*Ala.c -> Ala.mnt	0.01778	0	Inf
0*Ala.m -> Ala.mnt	0.02304	0	Inf
SSE:		55.30	53.00 - 142.00