Percentage change in pathway flux

	293mitoPARP high NAD	HEK293 low NAD	293mitoPARP low NAD
Objective Function - ATP	0	-29	-34
Electron transport chain	0	-27	-33
Mitochondrial transporters - characterised	-0	-29	-34
TCA cycle	-0	-25	-34
GABA shunt	0	1000	0
Malate aspartate shuttle	-0	24	-7
Glycolysis / gluconeogenesis	-1	-8	-8
Fatty acid and ketone body metabolism	-1	-19	-16
Reductive carboxylation	-100	0	50
Carnitine shuttle	-1	-19	-14
Serine and glycine biosynthesis	-90	243	329
Glycine cleavage system	-92	0	145
Mitochondrial transporters - uncharacterised	-49	369	35
Tryptophan / Lysine metabolism	0	-71	-71
Glutamate degradation / synthesis	0	-32	-26
Lysine degradation	0	-71	-71
Ketogenesis / Leucine degradation	0	-46	-46

Change in absolute pathway flux relative to 293 high NAD

100
75
50
25
0
−25
−50
−75
−100