

Table S1. List of genes used for principal component analyses

Number	E.C. #:
Glycolysis/gluconeogenesis genes	
1	1.1.1.27 Lactate dehydrogenase B (LDHB)
2	1.2.1.12 Glyceraldehyde-3-phosphate dehydrogenase (GAPDH)
3	1.2.1.3 Aldehyde dehydrogenase 1 family member A
4	2.4.1.1 Glycogene phosphorylase muscle
5	2.7.1.11 6-Phosphofructokinase
6	2.7.1.40 Pyruvate kinase (muscle isozyme)
7	2.7.2.3 Phosphoglycerate kinase 1 (PGK)
8	3.1.3.11 Fructose bisphosphatase
9	4.1.2.13 Aldolase 1 A muscle
10	4.2.1.11 Enolase (alpha)
11	5.3.1.1 Triosephosphate isomerase chain B
12	5.3.1.9 Phosphoglucose isomerase
13	5.3.1.9 Glucose-6-phosphate isomerase
14	5.4.2.1 Phosphoglycerate mutase (PGM) type B
15	5.4.2.2 Phosphoglucomutase
TCA genes	
1	1.1.1.41 Isocitrate dehydrogenase 2 (mitochondrial IDH2)
2	1.1.1.41 Isocitrate dehydrogenase isozyme 3
3	1.2.4.1 Pyruvate dehydrogenase E1 beta subunit (lipoamide)
4	1.2.4.1 Pyruvate dehydrogenase E1 alpha subunit
5	1.2.4.2 Oxoglutarate (alpha ketoglutarate) dehydrogenase (lipoamide)
6	1.3.5.1? Succinate dehydrogenase complex subunit C
7	1.8.1.4 Dihydrolipoamide dehydrogenase E3 component of pyruvate dehydrogenase complex
8	2.3.1.12 Dihydrolipoamide S acetyltransferase (E2 component of pyruvate dehydrogenase complex)
9	4.1.1.32 PEP carboxykinase phosphoenolpyruvate carboxykinase
10	4.1.3.7 Citrate synthase
11	4.2.1.2 Fumarate hydratase
12	6.2.1.1 Acetyl CoA synthetase
13	6.2.1.4 Succinate CoA ligase (GDP forming)
Oxidative phosphorylation genes	
1.10.2.2 = <i>complex III cytochrome reductase</i>	
1	1.10.2.2 Ubiquinol cytochrome c reductase core protein II
2	1.10.2.2 Ubiquinol cytochrome c reductase complex 7.2 kDa protein (cytochrome c1 nonheme 7 kDa protein) (complex III subunit x)
3	1.10.2.2 Ubiquinol cytochrome c reductase core protein I
4	1.10.2.2 Ubiquinol cytochrome c reductase iron sulfur subunit mitochondrial precursor (Rieske iron sulfur protein)
1.6.5.3 = <i>complex I NADH dehydrogenase</i>	
5	1.6.5.3 NADH dehydrogenase (ubiquinone)
6	1.6.5.3 NADH dehydrogenase (ubiquinone) 1 alpha subcomplex 1 (7.5 kDa MWFE)
7	1.6.5.3 NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 10 (42 kDa)
8	1.6.5.3 NADH dehydrogenase (ubiquinone) 1 alpha subcomplex 9 (39 kDa)
9	1.6.5.3 NADH dehydrogenase (ubiquinone) 1 beta subcomplex 6 (17 kDa B17)
10	1.6.5.3 NADH dehydrogenase (ubiquinone) chain 2
11	1.6.5.3 NADH dehydrogenase (ubiquinone) acyl carrier chain (ACPM) alpha beta subcomplex 1 (8 kDa SDAP)
12	1.6.5.3 NADH dehydrogenase (ubiquinone) Fe S protein 4 (18 kDa) (NADH coenzyme Q reductase)
13	1.6.5.3 NADH dehydrogenase (ubiquinone) Fe S protein 1
14	1.6.5.3 NADH dehydrogenase (ubiquinone) Fe S protein 1 NADH ubiquinone oxidoreductase 75 kDa subunit precursor (complex I 75 kDa) (CI 75 kDa)
15	1.6.5.3 NADH dehydrogenase (ubiquinone) flavoprotein 2
16	1.6.5.3 NADH dehydrogenase (ubiquinone) MLRQ subunit (complex I MLRQ)
17	1.6.5.3 NADH dehydrogenase subunit 5
18	1.6.5.3 NADH dehydrogenase (ubiquinone) Fe S protein 3 (30 kDa) (NADH coenzyme Q reductase)
19	1.6.5.3 NADH ubiquinone oxidoreductase 19 kDa subunit (complex I 19 kDa) (CI 19 kDa) (complex I PGIV) (CI PGIV)
20	1.6.5.3 NADH ubiquinone oxidoreductase AGGG subunit precursor (complex I AGGG) (CI AGGG)
21	1.6.5.3 NADH ubiquinone oxidoreductase ASHI subunit precursor (complex I ASHI) (CI ASHI)
22	1.6.5.3 NADH ubiquinone oxidoreductase B22 subunit (complex I B22) (CI B22)

- 23 1.6.5.3 NADH ubiquinone oxidoreductase MNLL subunit (complex I MNLL) (CI MNLL)
24 1.6.5.3 NADH ubiquinone oxidoreductase PDSW subunit (complex I PDSW) (CI PDSW)

1.9.3.1 = complex IV, cytochrome c oxidase

- 25 1.9.3.1 Cytochrome c oxidase subunit II
26 1.9.3.1 Cytochrome c oxidase subunit IV isoform 1
27 1.9.3.1 Cytochrome c oxidase subunit IV isoform 2
28 1.9.3.1 Cytochrome c oxidase polypeptide Va
29 1.9.3.1 Cytochrome c oxidase polypeptide VIa precursor
30 1.9.3.1 Cytochrome c oxidase polypeptide VIb
31 1.9.3.1 Cytochrome c oxidase polypeptide VIIa liver heart mitochondrial precursor (cytochrome c oxidase subunit VIIa L)
32 1.9.3.1 Cytochrome c oxidase subunit VIIIb
33 1.9.3.1 CYTOCHROME C OXIDASE POLYPEPTIDE VIIC PRECURSOR (VIIIA)
34 1.9.3.1 cytochrome c oxidase subunit VIIIa

3.6.1.34 = ATP synthetase

- 35 3.6.1.34 ATP synthase subunit B
36 3.6.1.34 ATP synthase beta subunit
37 3.6.1.34 ATP synthase H⁺ transporting mitochondrial F1 complex delta subunit
38 3.6.1.34 ATP synthase H⁺ transporting mitochondrial F0 complex subunit d
39 3.6.1.34 ATP synthase H⁺ transporting mitochondrial F1 complex alpha subunit isoform 1
40 3.6.1.34 ATP synthase H⁺ transporting mitochondrial F1 complex gamma polypeptide 1
41 3.6.1.34 ATP synthase F0 subunit 6 ATPase 6
42 3.6.1.34 ATPase H⁺ transporting lysosomal (vacuolar proton pump D subunit) 42 kDa
43 3.6.1.34 ATPase H⁺ transporting lysosomal (vacuolar proton pump) 16 kDa (Atp6l)
44 3.6.1.35 Vacuolar ATP synthase subunit c (V ATPase c subunit) (vacuolar proton pump c subunit)
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