

**Table S5: Top 50 KEGG metabolic pathway genes**

Consensus Symbol	ENSEMBL GENE ID	Control mean	Treatment mean	Fold change	P-value	Q-value
TCIRG1	ENSOARG000000014581	78.32	316.34	4.04	4.3E-05	0.02071
AKR1D1	ENSOARG000000010045	21.14	2.28	-9.27	7.3E-05	0.0219
SRR	ENSOARG000000015317	12.45	4.67	-2.67	9.8E-05	0.02256
RRM2	ENSOARG000000015333	26.21	5.78	-4.53	0.00015	0.0236
DGKD	ENSOARG000000019293	18.55	36.52	1.97	0.00029	0.02413
ALDH3B2	ENSOARG000000014051	7.93	14.16	1.79	0.00038	0.02413
DAD1	ENSOARG000000019440	483.92	787.48	1.63	0.00026	0.02413
PCCA	ENSOARG000000004442	14.09	6.82	-2.07	0.00019	0.02413
SORD	ENSOARG000000021059	19.12	8.91	-2.15	0.00036	0.02413
DPYS	ENSOARG000000015650	41.11	12.08	-3.4	0.00031	0.02413
ACSM3	ENSOARG000000013163	128.92	31.09	-4.15	0.00022	0.02413
ALG1	ENSOARG000000005002	23.19	15.16	-1.53	0.00043	0.02442
ACSL4	ENSOARG000000017954	263.86	110.87	-2.38	0.00046	0.02453
ALDH1A1	ENSOARG000000012705	49.15	18.8	-2.61	0.00048	0.02476
FBP1	ENSOARG000000008650	145.75	36.46	-4	0.00049	0.02476
UCKL1	ENSOARG000000009543	7.47	15.72	2.1	0.00059	0.02539
TPH1	ENSOARG000000001345	34.84	7.48	-4.66	0.00058	0.02539
AOC1	ENSOARG000000001799	80.04	8.17	-9.8	0.00059	0.02539
GCH1	ENSOARG000000021078	23.89	80.21	3.36	0.00064	0.02545
TGDS	ENSOARG000000000718	14.73	28.37	1.93	0.00069	0.02545
PCCB	ENSOARG000000007925	29.2	16.07	-1.82	0.00085	0.02606
ALDH18A1	ENSOARG000000006313	21.64	11.81	-1.83	0.00087	0.02606
AK1	ENSOARG000000011321	9.99	4.22	-2.37	0.00087	0.02606
TK1	ENSOARG000000005673	20.97	8.2	-2.56	0.00087	0.02606
EHHADH	ENSOARG000000020569	57	20.85	-2.73	0.00079	0.02606
CYP3A4	ENSOARG000000018283	19.91	129.87	6.52	0.00108	0.02618
PFKFB3	ENSOARG000000013082	23.25	82.66	3.56	0.00119	0.02618
PI4K2A	ENSOARG000000011093	23.1	76.03	3.29	0.00113	0.02618
IDUA	ENSOARG000000016268	54.89	34.35	-1.6	0.00096	0.02618
DNMT1	ENSOARG000000015380	26.48	15.27	-1.73	0.00104	0.02618
ACER2	ENSOARG000000014252	19.6	10.44	-1.88	0.00102	0.02618
FMO5	ENSOARG000000020524	10.48	5.46	-1.92	0.0011	0.02618
GATM	ENSOARG000000021045	380.79	193.8	-1.96	0.00106	0.02618
ACAA2	ENSOARG000000004046	63.89	32.02	-2	0.001	0.02618
ACADVL	ENSOARG000000010662	101.92	47.23	-2.16	0.00098	0.02618
AGMAT	ENSOARG000000009382	29.76	12.61	-2.36	0.0012	0.02618
ST6GALNAC6	ENSOARG000000011307	75.84	25.34	-2.99	0.00098	0.02618
AGXT	ENSOARG000000018314	47.09	14.51	-3.25	0.00124	0.02618
GSTA1	ENSOARG000000017584	73.06	20.77	-3.52	0.00103	0.02618

HGD	ENSOARG00000019925	20.8	5.15	-4.04	0.00113	0.02618
GALM	ENSOARG00000008843	97.12	20.99	-4.63	0.00122	0.02618
URAD	ENSOARG00000012428	24.54	2.76	-8.89	0.00122	0.02618
ATP6V1C1	ENSOARG00000016832	39.8	119.53	3	0.00218	0.02673
CYP26B1	ENSOARG00000011582	3.87	11.12	2.87	0.00191	0.02673
AHCYL2	ENSOARG00000004375	6.71	15.75	2.35	0.00228	0.02673
GUCY1B1	ENSOARG00000007989	28.98	60.1	2.07	0.00134	0.02673
SAT1	ENSOARG00000016798	1563.15	3088.4	1.98	0.00205	0.02673
HMGCR	ENSOARG00000016724	35.5	69.3	1.95	0.00205	0.02673
ALDH3B1	ENSOARG00000014292	11.95	22.29	1.87	0.00171	0.02673
CHPT1	ENSOARG00000015196	71.38	45.85	-1.56	0.0022	0.02673