

Table S4
Summary of enriched metabolic pathways and their statistics

Change	GeneSet	size ^a	description	expect ^b	DEPs ^c	Gene Symbol	ratio ^d	pValue ^e	FDR ^e
up	R-HSA-6791465	2	Pentose phosphate pathway disease	0.00	1	TALDO1	251.26	3.98E-03	7,19E-01
up	R-HSA-189451	11	Heme biosynthesis	0.02	2	FECH HMBS	91.37	2.05E-04	2,04E-01
up	R-HSA-379716	24	Cytosolic tRNA Aminoacylation	0.05	2	GARS AARS	41.88	1.01E-03	4.04E-01
up	R-HSA-71291	370	Metabolism of amino acids and derivatives	0.74	5	SLC3A2 TXNRD1 GSR CTH PHGDH	6.79	6,59E-04	3,28E-01
down	R-HSA-77348	5	Beta oxidation of octanoyl-CoA to hexanoyl-CoA	0.03	1	ACADM	30.15	3.27E-02	1,00E+00
down	R-HSA-72766	291	Translation	1.93	42	RPLP2 RPL13A RPLP1 RPL9 RPL18 RPL18A RPL7 RPL10 RPL17 RPL4 RPL7A RPL27 RPL21 RPS7 RPL30 RPS4X RPL3 RPS13 RPL23A RPS8 RPS28 EIF3K RPL8 RPL6 RPL10A RPL36 RPS10	21.76	0,00E+00	0,00E+00

						EIF3E RPS25 EIF3D RPS6 RPL35 RPS15A RPS20 RPS3A EEF2 RPL27A RPL5 RPS3 TRMT112 RPS19 RPL35A			
down	R-HSA-2426168	42	Activation of gene expression by SREBF	0.28	3	HMGCS1 FASN IDI1	10.77	2.67E-03	1.25E-01
down	R-HSA-8953854	673	Metabolism of RNA	4.46	46	RPLP2 RPL13A RPLP1 RPL9 RPL18 RPL18A RPL7 NAT10 NHP2 RPL10 RPL17 RPL4 RPL7A RPL27 RPL21 RPS7 RPL30 RPS4X RPL3 RPS13 RPL23A RPS8 DDX47 DDX5 RPS28	10.10	0,00E+00	0,00E+00

						RPL8 RPL6 RPL10A RPL36 RPS10 RPS25 RPS6 RPL35 RPS15A RPS20 DDX21 RPS3A RPL27A NCL RPL5 RPS3 TRMT112 HNRNPA3 RPS19 EDC4 RPL35A			
down	R-HSA-1643685	1054	Disease	6.99	40	RPLP2 RPL13A RPLP1 RPL9 RPL18 RPL18A RPL7 RPL10 RPL17 RPL4 RPL7A RPL27 RPL21 RPS7 RPL30 RPS4X RPL3 RPS13 RPL23A RPS8 RPS28 RPL8	5.72	0,00E+00	0,00E+00

						RPL6 RPL10A RPL36 RPS10 RPS25 KPNA2 RPS6 RPL35 RPS15A RPS20 RPS3A LMNB1 EEF2 RPL27A RPL5 RPS3 RPS19 RPL35A			
down	R-HSA-499943	30	Metabolism of nucleotides di- and triphosphates	0.20	3	TYMS RRM1 RRM2	15.08	9.98E-04	4.79E-02
down	R-HSA-1266738	1074	Developmental Biology	7.14	38	RPLP2 RPL13A RPLP1 RPL9 RPL18 RPL18A RPL7 RPL10 RPL17 RPL4 RPL7A RPL27 RPL21 RPS7 RPL30 RPS4X RPL3 RPS13 RPL23A RPS8 RPS28 RPL8	5.33	0	0

						RPL6 RPL10A RPL36 RPS10 RPS25 RPS6 RPL35 RPS15A MYL6 RPS20 RPS3A RPL27A RPL5 RPS3 RPS19 RPL35A			
down	R-HSA-71291	370	Metabolism of amino acids and derivatives	2.45	38	RPLP2 RPL13A RPLP1 RPL9 RPL18 RPL18A RPL7 RPL10 RPL17 RPL4 RPL7A RPL27 ADI1 RPL21 RPS7 RPL30 RPS4X RPL3 RPS13 RPL23A RPS8 RPS28 RPL8 RPL6 RPL10A RPL36 RPS10	15.58	0	0

						RPS25 RPS6 RPL35 RPS15A RPS20 RPS3A RPL27A RPL5 RPS3 RPS19 RPL35A			
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- a numbers of genes in the category
- b expected number of genes for a statistically significant enrichment
- c number of protein hits demonstrated by this study differentially expressed in quercetin-treated k562 cells
- d enrichment ratio according to the WEBGestalt algorithm
- e The p value of the new version WebGestalt is calculated from R. Zero means it is smaller than 2.220446E-16, the smallest positive floating-point number in R on the machine