

Table S5 Functional classification of DEGs using PANTHER ontologies. Enriched biological processes separating sirolimus from vehicle group as derived on the level of differential gene expression by SAM. Categories are ranked by the p-value (comparison of expected number of genes and observed number of genes in each biological process) indicating the relevance of a particular process.

Enriched Biological Processes		
down-regulated genes by Sirolimus treatment		
biological process	number of genes (n=76)	p-value
response to stimulus	21	<0.001
immune system process	23	<0.001
lipid metabolic process	13	<0.001
immune response	11	<0.001
cellular process	35	<0.001
anion transport	4	0.001
cell cycle	14	0.003
Transport	18	0.003
B cell mediated immunity	6	0.004
Mitosis	7	0.005
cellular amino acid and derivative metabolic process	5	0.006
metabolic process	40	0.008
cellular defense response	6	0.009
cellular component morphogenesis	9	0.014
anatomical structure morphogenesis	9	0.014
complement activation	3	0.015
signal transduction	22	0.016
developmental process	17	0.017
primary metabolic process	37	0.020
cell communication	22	0.024
vitamin metabolic process	2	0.027
induction of apoptosis	4	0.027
ion transport	6	0.028
defense response to bacterium	2	0.028
vitamin transport	2	0.035
coenzyme metabolic process	2	0.036
Cytokinesis	3	0.039
cell-cell signaling	8	0.040
chromosome segregation	3	0.042

up-regulated genes by Sirolimus treatment		
biological process	number of genes (n=8)	p-value
response to external stimulus	3	<0.001
blood coagulation	3	<0.001
response to stimulus	4	0.005
immune system process	4	0.011
regulation of biological process	1	0.020
regulation of vasoconstriction	1	0.020
anion transport	1	0.046

According to PANTHER classification down-regulated transcripts belong to response to stimulus, metabolic processes, immune system, transport and signal transduction. Up-regulated transcripts belong also to response to stimulus, immune system and transport but also to blood coagulation and regulation of vasoconstriction (table S2).