

Table S5. The most enriched pathways in predicted miRNA targets for top 10 abundant known miRNAs ( $p < 0.05$ , E-ratio  $> 2$ ).

KEGG pathway ID	Human testis		Genome		Gene Symbol	E-ratio	p-value
	Number	%	Number	%			
hsa00532	5	1.08	22	0.39	<i>chst12/chst13/chst3/ust/b3gat2/</i>	2.78	0.03
hsa04930	9	1.94	47	0.83	<i>socs4/irs2/socs1/adipoq/pik3ca/abcc8/cacnaie/socs3/inf/</i>	2.34	0.01
hsa04340	10	2.15	56	0.98	<i>csnk1d/wnt7a/wnt9a/gas1/ptch2/csnk1g2/fbxw11/wnt2/btrc/sufu/</i>	2.18	0.02
hsa04115	12	2.58	68	1.20	<i>igf1/casp3/sesn3/steap3/tsc2/bai1/ccne2/cdk6/tp73/pten/sesn2/ccne1/</i>	2.16	0.01
hsa05144	9	1.94	51	0.90	<i>comp/cr1/darc/klrk1/met/tgfb2/cd81/il6/tnf/</i>	2.16	0.03
hsa05222	14	3.01	83	1.46	<i>col4a6/lama5/plas4/itga2b/pik3ca/ccne2/cdk6/col4a4/ikbkg/lamb2/pten/ptgs2/ccne1/cdkn2b/</i>	2.06	0.01
hsa05410	14	3.01	83	1.46	<i>cacnb4/igf1/itga7/dmd/iyga2b/cacna2d2/itgb4/myl3/ppkag1/tgfb2/il6/itga10/tnf/</i>	2.06	0.01
hsa04114	18	3.87	112	1.97	<i>cpeb/igf1/anapc13/espl1/igf1r/ppp2r1b/slkc/ccne2/ppp2r5d/camk2b/fbxw11/plk1/ppp2ca/rps6ka2/ ywhag/btrc/ccne1/rps6ka3</i>	1.97	0.01
hsa05414	14	3.01	90	1.58	<i>cacnb4/igf1/itga7/dmd/adrb1/itga2b/cacna2d2/itgb4/myl3/pln/tgfb2/itga10/tnf/</i>	1.90	0.02
hsa05146	16	3.44	105	1.85	<i>col4a6/arg2/casp3/col1a2/gnal/lama5/plcb2/serpinb9/pik3ca/col4a4/lamb2/muc2/tgfb2/actn3/il6/tnf/</i>	1.86	0.02
hsa05142	15		102	1.79	<i>ccl3/ccl3l1/ccl3l3/faslg/gnal/plcb2/ppp2r1b/pik3ca/ikbkg/irak4/tgfb2/ppp2ca/c1qb/il6/tnf</i>	1.80	0.03