

Supplementary Table IV. KEGG pathways found for the 155 downregulated miRNAs. The name of the pathways (Term), number of miRNAs-target genes found to be associated in the respective pathways (Count), the *p-value*, and the total number of genes involved in the pathway (Pop Hits) is provided.

Term	Count	<i>p-value</i>	Pop Hits
ptr05200:Pathways in cancer	79	2.62E-39	394
ptr05205:Proteoglycans in cancer	55	8.02E-34	202
ptr05161:Hepatitis B	44	2.87E-28	150
ptr05206:MicroRNAs in cancer	50	4.52E-23	262
ptr05215:Prostate cancer	31	3.39E-22	89
ptr05212:Pancreatic cancer	27	3.57E-21	67
ptr05218:Melanoma	27	1.34E-20	70
ptr05210:Colorectal cancer	26	4.32E-20	66
ptr04151:PI3K-Akt signaling pathway	52	1.72E-19	341
ptr05220:Chronic myeloid leukemia	25	2.37E-17	75
ptr05166:HTLV-I infection	43	2.72E-17	261
ptr04068:FoxO signaling pathway	31	5.30E-17	130
ptr05214:Glioma	23	1.38E-16	65
ptr04520:Adherens junction	24	1.67E-16	73
ptr05213:Endometrial cancer	20	3.65E-15	52
ptr05219:Bladder cancer	18	8.84E-15	41
ptr05223:Non-small cell lung cancer	20	1.78E-14	56
ptr04510:Focal adhesion	35	3.32E-14	209
ptr04919:Thyroid hormone signaling pathway	26	1.19E-13	115
ptr04012:ErbB signaling pathway	22	1.07E-12	86
ptr05142:Chagas disease (American trypanosomiasis)	24	1.25E-12	106
ptr04071:Sphingolipid signaling pathway	25	2.60E-12	120
ptr05230:Central carbon metabolism in cancer	19	3.44E-12	64
ptr04722:Neurotrophin signaling pathway	25	4.57E-12	123
ptr05211:Renal cell carcinoma	19	6.14E-12	66
ptr04550:Signaling pathways regulating pluripotency of stem cells	26	9.06E-12	138
ptr05203:Viral carcinogenesis	31	1.37E-11	202
ptr04115:p53 signaling pathway	19	2.38E-11	71
ptr05162:Measles	25	3.67E-11	135
ptr04015:Rap1 signaling pathway	31	6.06E-11	214
ptr04010:MAPK signaling pathway	34	8.57E-11	259
ptr05222:Small cell lung cancer	20	2.51E-10	91
ptr04014:Ras signaling pathway	31	4.16E-10	231
ptr04370:VEGF signaling pathway	17	5.13E-10	65
ptr04915:Estrogen signaling pathway	20	5.48E-10	95
ptr04066:HIF-1 signaling pathway	20	5.48E-10	95
ptr04668:TNF signaling pathway	21	6.74E-10	107
ptr04660:T cell receptor signaling pathway	21	6.74E-10	107

ptr05145:Toxoplasmosis	21	6.38E-09	121
ptr04662:B cell receptor signaling pathway	16	1.15E-08	69
ptr04917:Prolactin signaling pathway	16	1.42E-08	70
ptr04210:Apoptosis	16	1.42E-08	70
ptr04380:Osteoclast differentiation	21	4.39E-08	135
ptr05221:Acute myeloid leukemia	14	6.08E-08	57
ptr05152:Tuberculosis	24	7.11E-08	180
ptr04390:Hippo signaling pathway	22	7.79E-08	153
ptr04620:Toll-like receptor signaling pathway	18	9.32E-08	103
ptr04024:cAMP signaling pathway	25	1.12E-07	199
ptr05231:Choline metabolism in cancer	18	1.25E-07	105
ptr04810:Regulation of actin cytoskeleton	26	1.48E-07	217
ptr04062:Chemokine signaling pathway	23	2.06E-07	176
ptr04310:Wnt signaling pathway	20	3.55E-07	139
ptr05216:Thyroid cancer	10	5.61E-07	30
ptr05160:Hepatitis C	19	8.49E-07	133
ptr04664:Fc epsilon RI signaling pathway	14	9.28E-07	71
ptr05133:Pertussis	14	1.78E-06	75
ptr05321:Inflammatory bowel disease (IBD)	13	2.66E-06	66
ptr05169:Epstein-Barr virus infection	22	3.60E-06	192
ptr04725:Cholinergic synapse	16	6.50E-06	110
ptr04350:TGF-beta signaling pathway	14	6.63E-06	84
ptr04110:Cell cycle	17	8.15E-06	126
ptr05202:Transcriptional misregulation in cancer	20	8.47E-06	171
ptr04670:Leukocyte transendothelial migration	16	1.72E-05	119
ptr04921:Oxytocin signaling pathway	19	1.90E-05	165
ptr04530:Tight junction	17	2.86E-05	139
ptr04931:Insulin resistance	15	2.95E-05	110
ptr04150:mTOR signaling pathway	11	3.00E-05	58
ptr04320:Dorso-ventral axis formation	8	3.09E-05	27
ptr05134:Legionellosis	11	4.07E-05	60
ptr04666:Fc gamma R-mediated phagocytosis	13	4.40E-05	86
ptr04650:Natural killer cell mediated cytotoxicity	15	4.89E-05	115
ptr04144:Endocytosis	23	1.08E-04	258
ptr05217:Basal cell carcinoma	10	1.15E-04	55
ptr04912:GnRH signaling pathway	13	1.19E-04	95
ptr05140:Leishmaniasis	11	1.39E-04	69
ptr05164:Influenza A	18	1.51E-04	176
ptr04540:Gap junction	12	2.50E-04	88
ptr04611:Platelet activation	15	2.58E-04	134
ptr04152:AMPK signaling pathway	14	2.99E-04	120
ptr05146:Amoebiasis	13	3.69E-04	107
ptr04960:Aldosterone-regulated sodium reabsorption	8	3.72E-04	39

ptr05144:Malaria	9	4.28E-04	52
ptr04932:Non-alcoholic fatty liver disease (NAFLD)	16	4.45E-04	158
ptr05100:Bacterial invasion of epithelial cells	11	4.77E-04	80
ptr04360:Axon guidance	14	4.82E-04	126
ptr04621:NOD-like receptor signaling pathway	9	6.32E-04	55
ptr05132:Salmonella infection	11	6.42E-04	83
ptr04916:Melanogenesis	12	6.99E-04	99
ptr05014:Amyotrophic lateral sclerosis (ALS)	9	7.16E-04	56
ptr04022:cGMP-PKG signaling pathway	16	7.51E-04	166
ptr04914:Progesterone-mediated oocyte maturation	11	7.77E-04	85
ptr05143:African trypanosomiasis	7	9.16E-04	33
ptr05020:Prion diseases	7	9.16E-04	33
ptr04910:Insulin signaling pathway	14	0.001144	138
ptr04064:NF-kappa B signaling pathway	11	0.001217	90
ptr05168:Herpes simplex infection	17	0.001428	195
ptr04930:Type II diabetes mellitus	8	0.001538	49
ptr04060:Cytokine-cytokine receptor interaction	18	0.002162	222
ptr04920:Adipocytokine signaling pathway	9	0.00371	72
ptr05323:Rheumatoid arthritis	10	0.00375	88
ptr04630:Jak-STAT signaling pathway	13	0.004866	144
ptr04730:Long-term depression	8	0.008388	66
ptr05410:Hypertrophic cardiomyopathy (HCM)	9	0.008771	83
ptr05031:Amphetamine addiction	8	0.009839	68
ptr04261:Adrenergic signaling in cardiomyocytes	12	0.015568	148
ptr05030:Cocaine addiction	6	0.028624	49
ptr04750:Inflammatory mediator regulation of TRP channels	9	0.029044	103
ptr04330:Notch signaling pathway	6	0.03092	50
ptr04720:Long-term potentiation	7	0.032509	68
ptr05414:Dilated cardiomyopathy	8	0.0357	88
