

Predicted miRNAs	Activation z-score	p-value of overlap	Target molecules in dataset
miR-16-5p	2.728	3.40E-05	CCND1, CCND2, CDC25A, CHEK1, HSP90B1, IGF1R, IL6, JUN, MAP2K1, PTGS2, TPM3
mir-34	2.392	1.82E-05	CCND1, CCND2, CDC25A, CDK4, LEF1, MYC
miR-145-5p	2.328	2.11E-08	ACTA2, CDK4, FSCN1, IGF1R, IRS1, MYC, PPP3CA, SERPINE1, TPM3
miR-125b-5p	2.208	1.44E-05	CD44, CDC25A, ID1, ID3, IL6R, JUN, MAP2K1, NOS2
let-7	1.106	3.01E-13	ACTA2, BRCA1, CCND1, CD44, CDC25A, CHEK1, COL1A1, COL1A2, GAB2, IGF1R, IL6, IL6R, ITGA4, KRAS, LEF1, MYC, PTGS2, TLR4
mir-21	0.387	4.42E-13	ACTA2, ARF6, CD274, CDC25A, CDKN1A, COL1A1, FCGR2A, ICAM1, IL1B, IL36G, IL6, IRAK1, MMP9, NLRC5, PPARA, PTEN, SESN1, SMC2, STAT1, TGFB1, TLR4, YWHAB
mir-223	0.016	2.84E-12	ABCB1, ACTA2, CCR3, CD274, E2F1, HMGCS1, ICAM1, IGF1R, IL1A, IL1B, IL6, LEP1, LPL, MEF2C, TLR4, TLR7
miR-26a-5p	1.334	1.49E-11	CCND2, CDK4, CDKN1A, EPHA2, GSK3B, MYC, PTEN, PTGS2, TGFBR2
mir-146	0.669	5.95E-11	CD40, DUSP1, IL1B, IL6, IRAK1, MYC, PDGFRA, PTGS2, STAT1, TLR4
mir-25	-0.593	8.51E-10	BAX, CDKN1A, E2F1, GADD45A, IL6, ITGA5, PTEN, TP63
miR-217-5p	0.928	1.12E-09	ACACA, FASN, IRS1, PPARA, PPARGC1A, PTEN
miR-17-5p	-0.355	2.32E-09	CCND1, CCND2, CDKN1A, E2F1, PPARA, PPARG, PTEN, TGFBR2, TLR7, TP63
miR-24-3p	0.416	1.17E-08	BAX, BRCA1, CDK4, IL6, MYC, SMAD3, TGFB1
miR-92a-3p	0.535	2.80E-08	CCND1, CCND2, CDKN1A, IL6, ITGA5, PTEN, TP63
miR-21-5p	-0.093	2.88E-08	ACTA2, CDC25A, CDKN1A, FAS, IL6R, IRAK1, PTEN, SESN1, TGFBR2
mir-145	1.296	3.41E-08	ACTA2, CACNA1C, FSCN1, IL6, IRS1, MYC, PDGFRA, PRKCE
miR-155-5p	0.997	5.51E-08	AGTR1, CCND1, CEBPB, CTNNB1, IL1A, IL1B, IL6, KRAS, LPL, NOS2, PDE3A, PTGS2, SERPINE1
mir-10	0.528	6.29E-08	BAX, CD40, CD44, E2F1, GAB2, IGF1R, IL6, IL6R, PPP2CA, RPS6KA1
miR-204-5p	-0.186	1.62E-07	ARPC1B, CDC25B, MMP9, PPARG, PTPN11, SOX4
miR-34a-5p	0.613	1.88E-07	CCND1, CDK4, CDKN1A, E2F1, ICAM1, MAP2K1, MYC, PPARG
miR-141-3p	0.152	2.53E-07	BAX, COL1A2, CTNNB1, GADD45A, ITGB1, LEP1, STAT5B, TP73
let-7a-5p	0.96	2.64E-07	ACTA2, CCND1, CCND2, CDC25A, COL1A1, COL1A2, ITGA4, KRAS, MMP9, MYC, PTGS2, TLR4
miR-146a-5p	-1.888	1.07E-06	BRCA1, CCR3, CD40, IL36G, IRAK1, NFKBIA, NOS2, STAT1, TLR4
mir-27	-1.296	2.49E-06	ABCB1, IL1B, IL6, KRAS, PPARA, PPARG, PTGS2
mir-24	0.896	3.68E-06	CDK4, CDKN1A, IL6, MYC, SERPINE1, TGFB1
mir-33	0.728	3.83E-06	ACACA, CPT1A, LPL, PPARG, PPARGC1A
mir-155	0.508	3.98E-06	AGTR1, CCND1, CDKN1A, CEBPB, IL1B, IL6, NOS2, PTGS2, SERPINE1
mir-373	0.585	8.69E-06	CD44, IL6, SERPINE1, TGFBR2

mir-127	-0.868	1.24E-05	DUSP1, IL1B, IL6, NOS2
mir-15	1.128	1.26E-05	CCND1, CCND2, CHEK1, IL1B, IL6, MMP9, PTGS2
mir-515	0.739	1.72E-05	CD44, IL6, SERPINE1, TGFBR2
mir-7	0.264	1.72E-05	BAX, CDKN1A, IGF1R, PIK3R3
miR-503-5p	1.188	2.33E-05	CCND1, CDC25A, CDKN1A, CHEK1
miR-18a-5p	-1.982	2.33E-05	CDKN1A, E2F1, KRAS, TP63
mir-192	1.082	3.99E-05	ACTA2, CDKN1A, IGF1R, NOD2
mir-1	0.524	4.57E-05	CCND2, CEBPB, HSP90B1, HSPD1, IGF1R, KRAS, MMP9, MYLK
mir-30	-0.73	4.62E-05	BAX, CDKN1A, GADD45A, IL6, SERPINE1
mir-143	-0.246	5.08E-05	KRAS, PDGFRA, PRKCE, PTGS2
mir-17	-0.148	5.57E-05	CCND1, CDKN1A, E2F1, FAS, LEF1, PTEN
miR-23a-3p	0.192	7.89E-05	CXCL12, IL6R, PTEN, SMAD3
miR-296-5p	0.132	7.89E-05	ABCB1, BAX, CCND1, COL1A1
mir-19	-0.94	9.66E-05	CDKN1A, E2F1, PTEN, TP63
miR-27a-3p	-1.103	1.03E-04	ADORA2B, BAX, MEF2C, PPARG, SMAD3
mir-133	0.669	1.47E-04	CCND2, FSCN1, GSTP1, IGF1R, PPARG
miR-199a-5p	0.128	1.77E-04	ACTA1, CDKN1A, COL1A1, ID3, TGFBR2, TGFBR3
mir-181	-0.092	1.82E-04	DUSP6, GRIA2, PRKCD, PTEN, PTPN11
miR-221-3p	0.153	3.10E-04	DDIT4, FOS, ICAM1, PTEN
miR-30c-5p	0.378	3.14E-04	ATP2A2, GPD2, IL6, JUN, PPARG, PPP3CA, PTPRK
mir-8	1.619	4.79E-04	CDC25B, CTNNB1, ITGB1, PTEN, YWHAB, YWHAG
miR-291a-3p	0.841	6.14E-04	CCND1, CCND2, CD44, CD83, CDKN1A, TP63
mir-322		8.69E-05	CDC25A, IGF1R, MAP2K1
miR-451a		1.83E-04	ABCB1, CCND1, MMP9
mir-218		4.25E-04	LEF1, PDGFRA, VAV3
miR-100-5p		5.36E-04	CCND1, ID1, IGF1R
miR-143-3p		6.64E-04	KRAS, PDGFRA, PRKCE
mir-221		8.11E-04	MMP9, PTEN, STAT5A
miR-132-3p		8.11E-04	GRIN2A, MMP9, SOX4
miR-515-5p		8.19E-04	PIK3C2B, TCF7L1
miR-193a-5p		8.19E-04	IL2RG, TP73
mir-26		9.76E-04	CCND2, PTEN, PTGS2
mir-503		1.35E-03	CDC25A, IGF1R
miR-7a-5p		1.37E-03	FOS, IGF1R, IRS1
mir-214		1.37E-03	IGF1R, PTEN, PTGS2
mir-183		1.59E-03	IRS1, ITGB1, PTEN
mir-103		2.41E-03	CACNA1C, FASN, PRKCE
mir-296		2.80E-03	COL1A1, IL1B
miR-491-5p		2.80E-03	MMP9, PTK2
mir-224		2.80E-03	CDKN1A, MMP9
miR-140-5p		3.70E-03	CXCL12, SMAD3

mir-132		4.27E-03	GRIN2A, PTEN, SOX4
miR-193a-3p		4.72E-03	CCND1, PTK2
mir-194		4.72E-03	ACTA2, E2F1
mir-101		7.11E-03	DUSP1, PTGS2
miR-214-3p		7.11E-03	BAX, PTEN
miR-96-5p		8.46E-03	IRS1, KRAS
miR-223-3p		9.92E-03	IRS1, MEF2C
miR-19b-3p		9.92E-03	CCND1, PTEN
mir-196		1.15E-02	COL1A1, FOS
mir-130		1.15E-02	ABCB1, PPARA
miR-513a-5p		1.18E-02	CD274
miR-18a-3p		1.18E-02	KRAS
miR-545-3p		1.18E-02	BRCA1
miR-574-3p		1.18E-02	TP63
miR-216a-5p		1.18E-02	PTEN
miR-330-3p		1.18E-02	E2F1
mir-493		1.18E-02	IGF1R
miR-205-5p		1.49E-02	PRKCE, PTEN
mir-205		1.49E-02	CTNNB1, PRKCE
mir-203		1.68E-02	MMP9, TP63
miR-199a-3p		1.68E-02	CD44, PTGS2
miR-133a-3p		2.23E-02	FSCN1, IGF1R, PTPRK
miR-16-1-3p		2.35E-02	CHEK1
miR-511-5p		2.35E-02	TLR4
miR-185-3p		2.35E-02	MYC
mir-95		2.35E-02	BRCA1
mir-485		2.35E-02	GRIA2
mir-383		2.35E-02	MYC
miR-1298-5p		2.35E-02	PTK2
miR-181a-5p		3.23E-02	GRIA2, KRAS
miR-2682-5p		3.50E-02	MYC
miR-424-3p		3.50E-02	CHEK1
miR-615-3p		3.50E-02	PPARG
miR-370-3p		3.50E-02	MAP3K8
mir-489		3.50E-02	PTPN11
mir-499		3.50E-02	PPP3CA
miR-125b-1-3p		3.50E-02	IL1B
mir-149		3.50E-02	E2F1
mir-126		3.74E-02	CXCL12, IRS1
miR-29b-3p		3.99E-02	COL1A1, COL1A2, PTEN
mir-22		4.01E-02	CDKN1A, LEF1

mir-135		4.01E-02	CXCL12, IL1B
mir-128		4.64E-02	BAX
miR-191-5p		4.64E-02	IL6
miR-125b-2-3p		4.64E-02	BAX
mir-574		4.64E-02	TP63
miR-328-3p		4.64E-02	CD44
miR-149-5p		4.64E-02	E2F1
miR-378a-3p		4.64E-02	IGF1R
mir-29		4.81E-02	COL1A1, LPL, PTEN

Supplemental Table 1. Predicted microRNAs (miRNAs) from the all key genes determined through Ingenuity Pathway Analysis (IPA). Activation Z-scores > 0 will predict the miRNA is activated and activation Z-scores < 0 will predict the miRNAs are inhibited. The bold miRNAs are the top miRNAs which were used in our analysis.