

List of upstream regulators associated with dataset from ELISA results

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Upstream Regulator	Molecule Type	Predicted Activation State	Activation z-score	p-value of overlap	Target molecules in dataset
miR-558 (miRNAs w/seed GAGCUGC)	mature microRNA	Activated	2.236	4.25E-02	ADAM12, CUL3, ITCH, SH2D3A, SLC24A1
ARNT2	transcription regulator	Activated	2.236	1.18E-01	ARID1A, BAG6, CXCR5, GZMH, IL6R
SIM1	transcription regulator	Activated	2.236	1.24E-01	ARID1A, BAG6, CXCR5, GZMH, IL6R
ERBB2	kinase	Activated	2.449	1.26E-01	ACT1A, ADAM12, APLP2, ASPFM, ATP6A2, CUL3, ESPL1, ESR2, GZMH, IGF2R, MYBL2, POLD1, PTPN1, STMN3
SP1	transcription regulator	Activated	2.236	0.45E-01	ASST1, MYBL2, PMLXPL, PPARD, SLC7A1, SLC7A1, TFF1
Insulin	group	Activated	2.186	4.54E-01	ACADM, ACTA1, MLXPL, PPARD, SLC7A1
IL4	cytokine	Activated	2.646	1.00E00	ASS1, CXCL16, CXCR5, ITGA4, JAK3, MCM5, PFKF, PFKP, UQCRC1
miR-17-5p (and other miRNAs w/seed A)	mature microRNA	Inhibited	-2.086	3.52E-03	ACTR1A, ANKRD50, ARHGAP26, ASH1L, CUL3, CYP2U1, EHD3, FAM3C, FBXO31, FMNL3, IL6ST, ITCH, ITGA4, KDM2A, KIF23, PFKP, PLA2G6, PLEKHA8, PPARD, RAB10, RAP2C, SORL1, SSH1, TET3, TMEM127, USP28, VPS13C
miR-491-5p (miRNAs w/seed GUGGGG)	mature microRNA	Inhibited	-2.983	4.05E-03	ADD1, AGPAT1, CRTCT1, ELAVL3, GPD1, IL6R, JMJD8, PATL1, PNKD, PPP1R18, RAB7A, SF3A1, SRPR
miR-339-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-3.595	9.35E-03	ACTR1A, DCAF12, ITGA4, ITPRIP, PDE4DIP, PLEKHH1, TLE3, TNPO3, UHRF1, VPRBP
miR-4731-5p (miRNAs w/seed CCUGG)	mature microRNA	Inhibited	-3.228	1.09E-02	CDK2AP2, FBXO31, KDM2A, PDE4DIP, PLA2G6, PLXDC1, POLDIP3, SLC7A1, TET3, TIMELESS, TMEM127, TMEM214, TMEM63A, TNFRSF1B
miR-326-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.839	2.45E-02	AGPAT1, AMIGO1, CRTCT1, EIF2AK1, MCM5, PFKP, PLA2G6, PNKD, PPARD, PYCRL, RAB7A, SF3A1, SIGLEC14, TNFRSF1B, TSR1
miR-708-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.395	2.93E-02	AMIGO1, ARAF, EPPOR1, IQGAP1, PPP1R18, PSMF1, SF3A1, TIMELESS, TMEM127
miR-3684-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.804	2.96E-02	ADC4, ARAF, ARID1A, LMNA, MYO1A, PNKD, POLDIP3, WDR59
miR-4472 (and other miRNAs w/seed G)	mature microRNA	Inhibited	-2.282	3.07E-02	ADD1, AGPAT1, CCDC3, CDK2AP2, ELAVL3, IDH3B, PNKD, SF3A1, STMN3, TIE1, TLE3
miR-1321 (and other miRNAs w/seed A)	mature microRNA	Inhibited	-2.010	3.32E-02	IL6R, MTA2, POLDIP3, PPARD, PPP1R18, RAB1A, SSH1, TET3
miR-4723-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.775	3.36E-02	ACTR1A, ARAF, CDK2AP2, CHPF, CRTCT1, GPD1, H1FX, IDH3B, PGAM2, PLA2G6, STMN3, TCOF1, TIE1, TLE3, TNFRSF1B
miR-1236-3p (miRNAs w/seed CUCUUC)	mature microRNA	Inhibited	-2.000	4.04E-02	AMIGO1, MTA2, SEC22C, SORL1
miR-361-3p (miRNAs w/seed CCCCCA)	mature microRNA	Inhibited	-2.025	4.29E-02	ADD1, ADORA1, C11orf58, CCHCR1, CHPF, CYP2U1, IL6R, JMJD8, PI4K2A, SLC1A5, TET3, UBE2V1
miR-214-3p (and other miRNAs w/seed G)	mature microRNA	Inhibited	-2.297	4.55E-02	ARHGAP26, ARIH2, CHPF, CPD, DBNDD2, FMNL3, GPD1, GRB10, ITC, PANK1, PSMF1, SORL1, TET3, TLE3, TMEM127, VPRBP
miR-4292 (miRNAs w/seed CCUGGG)	mature microRNA	Inhibited	-2.266	5.58E-02	ABHD4, ARHGAP26, CRTCT1, EHD3, GPD1, HPS1, KDM2A, LDB1, SF3A1, SLC1A5, SLC39A2, STMN3
miR-1207-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.450	6.18E-02	ABHD4, ADAM12, AMIGO1, AP3S2, CHPF, CRTCT1, CXCR5, ELAVL3, FMNL3, HPS1, PFKF, PLA2G6, PPARD, SF3A1, SIGIRR
miR-3594-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.197	6.65E-02	ACTR1A, ADORA1, ARIH2, C16orf5, GRB10, HPS1, JAK3, PLXDC1, PNKD, SIGIRR, TMEM127, TNFRSF1B
miR-1225-3p (miRNAs w/seed GAGCC)	mature microRNA	Inhibited	-2.178	7.10E-02	ELAVL3, FERMT3, JAK3, LRP10, NRM, PLB2, SEC22C, TMEM63A
miR-3943 (miRNAs w/seed AGCCCC)	mature microRNA	Inhibited	-2.606	8.14E-02	DCAF12, ELAVL3, GRWD1, JAK3, MLXPL, PNKD, POLDIP3
miR-296-5p (miRNAs w/seed GGGCC)	mature microRNA	Inhibited	-2.101	9.85E-02	ACTR1A, ARHGEEF1, ELAVL3, FBXO31, FLNB, GPD1, H1FO, JMJD8, PI4K2A, PPARD, PSMF1, PYCRL, SSH1, TLE3
miR-4293 (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.804	9.49E-01	FMNL3, LDB1, MLXPL, PNKD, PPP1R18, SEC22C, TMEM127, ZNRF1
miR-143-3p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.396	1.18E-01	ARHGAP26, ARHGEEF1, ASH1L, CPD, FAM108B1, IGF2R, MYBL2, STMN3, TMEM127
miR-149-3p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.650	1.21E-01	AGPAT1, ARHGAP26, CXCL16, CXCR5, DBNDD2, DDB1, ELAVL3, IL6R, MYBL2, PANK1, PMM2, PPARD, PYCRL, SRPR, TET3
miR-4254 (miRNAs w/seed CCUGG)	mature microRNA	Inhibited	-2.219	1.37E-01	ADORA1, CDK2AP2, GPD1, ITPRIP, TRIM11
miR-4640-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.180	1.41E-01	C16orf5, CD248, ESR2, IL6R, ITPRIP, JAK3, PLA2G6, PLD4, PYCRL, SLC24A1, STMN3
miR-874-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.464	1.49E-01	FMNL3, LDB1, MLXPL, PNKD, PPP1R18, SEC22C, TMEM127, ZNRF1
miR-4758-3p (miRNAs w/seed CC C C C)	mature microRNA	Inhibited	-2.450	1.73E-01	C16orf5, GPD1, IL6R, ITPRIP, KDM2A, TNFRSF1B, TRIM11, UBE2V1
miR-124-3p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.959	1.75E-01	ABHD4, AKT1S1, ARAF, ARHGEEF1, CAPNS1, CPD, EHD3, FBXO31, FMNL2, GSN, IL6R, IQGAP1, ITPRIP, PANK1, PLEKHH1, PNKD, PTPN1, RAB10, SLC7A1, SORL1, SOS2, SP3, SPTLC1, SSH1, TET3, TFEF, THBS2, TSPAN15, UHRF1
miR-744-5p (miRNAs w/seed GCGGG)	mature microRNA	Inhibited	-2.200	1.85E-01	ARHGEEF1, PLD4, PNKD, CYP2U1, ITPRIP, PANK1, PLEKHH1, PNKD, PTPN1, RAB10, SLC7A1, SORL1, SOS2, SP3, SPTLC1, SSH1, TET3, TFEF, THBS2, TSPAN15, UHRF1
miR-1237-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.069	2.03E-01	AKT1S1, CRTCT1, ELAVL3, FMNL3, LMNA, SLC7A1, STMN3, TMEM127
miR-4749-3p (miRNAs w/seed GCGCC)	mature microRNA	Inhibited	-2.786	2.28E-01	ESR2, GPD1, IL6R, POLDIP3, PPARD, TFEF, TMEM63A, TNFRSF1B
miR-116-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.443	2.38E-01	CDK2AP2, ARHGAP26, ASH1L, CPD, FMNL3, GRB10, IGF2R, KIF23, LEPREL1, PANK1, PLEKHH1, RAP2C, RNF183, SLC24A1, SLC7A1, SNX1, SOS2, SPTLC1, SRPR, STXB3, TET3, UBE2V1, VPS33B
miR-939-5p (miRNAs w/seed GGGGGA)	mature microRNA	Inhibited	-2.159	3.00E-01	CD248, GPD1, PPARD, SLC7A1, STMN3, TCOF1, TLE3, ZNRF1
miR-762 (and other miRNAs w/seed G)	mature microRNA	Inhibited	-2.621	3.15E-01	ADORA1, CRTCT1, FBXO31, IQGAP1, JMJD8, PFKF, PKM, PLA2G6, PMM2, PPARD, TMEM127
miR-3194-5p (miRNAs w/seed CCGAG)	mature microRNA	Inhibited	-2.180	3.58E-01	ACTR1A, AGMAT, ASS1, MLXPL, PNKD, TNFRSF1B, ZNRF1
miR-27a-3p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.878	3.84E-01	ADD1, C11orf58, C16orf5, CBLB, CPD, CRTCT1, DCAF12, EHD3, GPD1, PANK1, PLEKHH1, PNKD, RCAN2, SORL1, SSH1, TET3, TNPO3, UBE2V1
miR-3103-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.000	4.15E-01	KDM2A, PYCRL, SSH1, TET3
mifepristone	chemical drug	Inhibited	-2.186	4.25E-01	FOXF1, ITGA4, JAK3, TFF1, THBS2
miR-1913 (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.030	4.39E-01	ARRDC2, CRTCT1, KDM2A, MYBL2, POLDIP3, PPP1R18, VPRBP, ZNRF1
miR-3151 (miRNAs w/seed GUGGGG)	mature microRNA	Inhibited	-2.426	5.03E-01	ADD1, EIF2AK1, ELAVL3, FERMT3, PNKD, TIE1
miR-4651 (and other miRNAs w/seed C)	mature microRNA	Inhibited	-3.116	5.39E-01	ABHD4, ACTR1A, ARHGEEF1, ASH1L, ELAVL3, FBXO31, LDB1, PLA2G6, PLB2, SLC7A1
miR-34a-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.072	1.00E00	ACTR1A, ARHGAP26, C16orf5, CPD, CRTCT1, IL6R, MTA2, SRPR
miR-4283 (miRNAs w/seed GCGGAG)	mature microRNA	Inhibited	-2.190	1.19E-01	ADD1, KDM2A, PPARD, STMN3, TRIM11
miR-3175 (miRNAs w/seed GGGGAGA)	mature microRNA	Inhibited	-2.213	1.00E00	AGPAT1, CAPNS1, GPD1, PYCRL, ZNRF1
miR-330-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-2.423	1.00E00	GRWD1, RRNAD1, SRPR, STMN3, TLE3, TMEM127
miR-1233-3p (miRNAs w/seed GAGCC)	mature microRNA	Inhibited	-1.454	1.04E-04	ADD1, CXCR5, FADS3, FMNL2, FMNL3, GRWD1, LRP10, PFKF, PLEKHH1, TMOD3
ALDH1A1	enzyme	Inhibited	7.23E-04		ACADM, MLXPL, PPARD
miR-3689d (miRNAs w/seed GGAGGUG)	mature microRNA	Inhibited	-1.800	7.50E-04	EHD3, MLXPL, PLEKHA8, PMM2, PNKD, PTPN1, TCOF1, THBS2, VPS13C
miR-302e-3p (and other miRNAs w/seed C)	mature microRNA	Inhibited	0.883	9.48E-04	ASH1L, EIF2AK1, IL6ST, KIF23, SPTLC1, VPRBP
miR-9-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-0.577	3.01E-03	ACTR1A, ADAM10, ARID1A, ATF1, C11orf58, CLIC4, DR1, ESYT1, FLNB, IGF2R, IL6R, KDM2A, KIF23, LMNA, MBNL1, MCMBP, PI4K2A, PLB2, PPARD, RAP2C, RCAN2, SLC7A1, THBS2, TMEM63A, TRIM11, TSPAN15, UHRF1, ZBTB1
miR-3942-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	1.982	3.52E-03	CLIC4, CXCL16, IREB2, RAP1A
Gcn5l	group	Inhibited	4.31E-03		ACADM, TFF1
miR-4509 (miRNAs w/seed CUAAAGG)	mature microRNA	Inhibited	4.31E-03		PLC1, VPS13C
vanadate	chemical - other	Inhibited	4.32E-03		ACTA1, LCK, TFF1
miR-3473b (and other miRNAs w/seed C)	mature microRNA	Inhibited	0.529	4.43E-03	CCDC3, CXCL16, DDB1, FBXO31, FLNB, IREB2, PPP1C8, RCAN2, SEC22C, TMEM63A, UHRF1BP1L
miR-421-3p (and other miRNAs w/seed C)	mature microRNA	Inhibited	0.937	5.41E-03	ADAM12, ANKRD50, ARHGAP26, ASH1L, CUL3, GRB10, IREB2, KDM2A, MCMBP, PLCL1, PLXDC1, SNX1, SP3, TOMM70A
miR-4508 (miRNAs w/seed CCGGGCU)	mature microRNA	Inhibited	-1.698	5.81E-03	ADD1, ITGA4, PLEKHA8, PYCRL, SLC7A1, TMEM127
miR-4511 (miRNAs w/seed AAGAACU)	mature microRNA	Inhibited	6.37E-03		PLEKHA8, SP3
miR-1288 (miRNAs w/seed GGACUGC)	mature microRNA	Inhibited	-0.243	6.58E-03	ADORA1, CCDC3, DEM1, RAP2C, TMEM63A, VPS13C
miR-204-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	0.567	7.40E-03	ADAM12, ARHGAP26, CPD, ELAVL3, IGF2R, IL6R, IL6ST, KDM2A, LATS1, LEPREL1, MBNL1, PANK1, RAB10, RAP2C, SEC22C, TMOD3, TOMM70A, ZNRF1
miR-144-3p (miRNAs w/seed ACAGUAU)	mature microRNA	Inhibited	-0.462	8.56E-03	ADAM12, ANKRD50, APLP2, ARHGAP26, ARID1A, ASH1L, C11orf58, CRTCT1, CUL3, IGF2R, MAPK6, MBNL1, PANK1, PMM2, RAP1A, RAP2C, TET3, TMEM165, UBE2V1, UHRF1, YLPM1
IFN1@	other	Inhibited	8.80E-03		LCK, TLR3
miR-504 (and other miRNAs w/seed G)	mature microRNA	Inhibited	-1.549	1.42E-02	ARIH2, C16orf5, FMNL3, IL6R, MCMBP, PLB2, SH2D3A, SLC35A5, SLC7A1, TNPO3
STOX1	other	Inhibited	1.47E-02		PSMF1, RAB10
miR-30c-5p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-1.723	1.51E-02	ACT1, ADAM12, ARHGAP26, ARID1A, ATF1, CBLB, ELAVL3, EPDR1, GRB10, IGF2R, ITGA4, MBNL1, MYBL2, PLCB4, PNKD, PPP1R18, RAB7A, RAP2C, SEC22C, SLC35A5, SLC7A1, SNX1, SSH1, TET3, THBS2, TNPO3, VPS13C, ZNRF1
miR-528a (and other miRNAs w/seed C)	mature microRNA	Inhibited	-1.928	1.54E-02	EIF2AK1, FAM213A, TIMELESS
miR-4737 (miRNAs w/seed UGCGAGC)	mature microRNA	Inhibited	-1.945	1.54E-02	ACTR1A, APLP2, CXCR5
miR-101-3p (and other miRNAs w/seed C)	mature microRNA	Inhibited	-0.902	1.63E-02	ADAM12, ANKRD50, APLP2, ARHGAP26, ARID1A, ASH1L, CUL3, DR1, FAM108B1, IGF2R, MAPK6, MBNL1, PANK1, RAP2C, SORL1, SSH1, TET3, UHRF1, YLPM1
miR-4686 (miRNAs w/seed AUCUGCU)	mature microRNA	Inhibited	1.72E-02		IREB2, VPS13C, ZBTB1
medroxyprogesterone acetate	chemical drug	Inhibited	0.555	1.73E-02	ASPM, IL6R, LMNA, MCM5, SP3
ERG	transcription regulator	Inhibited	0.447	1.73E-02	ADD1, FLNB, FMNL2, FMNL3, RAB7A
miR-4664-3p (miRNAs w/seed UUCGCG)	mature microRNA	Inhibited	-0.391	1.90E-02	CCDC3, CPD, UBE2V1
miR-483-3p (miRNAs w/seed CACUCC)	mature microRNA	Inhibited	-0.391	2.04E-02	FAM213A, HPS1, MTA2, SLC24A1, SLC7A1
miR-4740-3p (miRNAs w/seed CCGGAG)	mature microRNA	Inhibited	-2.10E-02		EHD3, FBXO31, UHRF1
SKIL	transcription regulator	Inhibited	2.10E-02		ADAM12, SLC1A5, THBS2
MYBL2	transcription regulator	Inhibited	2.10E-02		IQGAP1, MYBL2, SLC1A5
Gd9	complex	Inhibited	2.12E-02		LCK
Esr1-Estrogen-Fos-Jun	complex	Inhibited	2.12E-02		TFF1
hnRNP H	complex	Inhibited	2.12E-02		ARAF
poly ICLC	chemical drug	Inhibited	2.12E-02		TLR3
SETD1A	ion channel	Inhibited	2.12E-02		TFF1
WWC1	transcription regulator	Inhibited	2.12E-02		TFF1
Lamin b	group	Inhibited	2.12E-02		LMNA
ALG1	enzyme	Inhibited	2.12E-02		TFF1
CHMP3	other	Inhibited	2.12E-02		IGF2R

ACHR	complex		2.12E-02	TFF1
PCGF6	transcription regulator		2.12E-02	C16orf5
MORF4L2	other		2.12E-02	MYBL2
POLDIP2	other		2.12E-02	POLD1
miR-513a-3p (and other miRNAs w/seed)	mature microRNA		2.12E-02	ITGA4
mir-137	microRNA		2.12E-02	SPTLC1
MAPKAPK5	kinase		2.12E-02	MAPK6
Cenp	other		2.12E-02	ACADM
ME23	transcription regulator		2.12E-02	TFF1
VGLL4	other		2.12E-02	ACTA1
TNK1	kinase		2.12E-02	RAP1A
MORF4L1	other		2.12E-02	MYBL2
RAB9A	enzyme		2.12E-02	IGF2R
oxfenicine	chemical - endogenous		2.12E-02	ACADM
PLN	transporter		2.13E-02	ACTA1,PGAM2,RAB10,RAP1A
miR-3156-5p (miRNAs w/seed AAGAU)	mature microRNA		2.18E-02	RAP1A,SF3A1
miR-490-5p (miRNAs w/seed CAUGGA)	mature microRNA		2.18E-02	ARHGAP26,ESR2
AKT3	kinase		2.18E-02	AKT1S1,TOMM70A
miR-216b-5p (and other miRNAs w/seed)	mature microRNA	-0.396	2.27E-02	ASH1L,CLIC4,DCAF12,ELAVL3,ITCH,NDIFP2,STXBP3,VPRBP,ZNF653
miR-4769-3p (miRNAs w/seed CUGCG)	mature microRNA	-0.278	2.42E-02	CUL3,FAM3C,PANK1,SEC22C
miR-4473 (miRNAs w/seed UAGUGCU)	mature microRNA	-1.192	2.42E-02	CYP21A,EIF2AK1,KIF23,VPRBP
miR-223-3p (miRNAs w/seed GUCAGU)	mature microRNA	0.225	2.50E-02	ARID1A,C17orf75,CBLB,DCAF12,IL6ST,MBNL1,PLA2G6,PLEKH11,SP3,TET3
MIR124	group		2.58E-02	IQGAP1,SET
D-glucose	chemical - endogenous	0.697	2.66E-02	ACADM,ASS1,ATP6AP2,CPD,GPD1,IL6ST,MLXIPL,PFKL,PFKP,PPARD,SEPHS2,SLC7A1,SRPR
miR-122-5p (miRNAs w/seed GGAGUG)	mature microRNA	-0.835	2.69E-02	ADAM10,CLIC4,LRP10,MBNL1,PKM,SEC22C,SLC1A5,SLC7A1
miR-365-3p (and other miRNAs w/seed)	mature microRNA	0.310	2.69E-02	AKR2C2,FAM3C,LDI1,PLCB4,POLDIP3,SET,TMOD3,UHRF1BP1L,ZNRF1
miR-2908 (miRNAs w/seed UUAJGGG)	mature microRNA	0.762	2.74E-02	ACERS,ATP6AP2,RAB10,VPS13C
miR-4763-5p (miRNAs w/seed GCCUGG)	mature microRNA	-1.199	2.77E-02	CCDC3,CRTC1,CXCR5,FERMT3,FLNB,IL6R,LMNA,MLXIPL,SF3A1,SPTLC1,SSH1,TMEM63A
miR-135a-5p (and other miRNAs w/seed)	mature microRNA	0.154	2.99E-02	ADAM12,AP3S2,CCSAP,CMTM3,CPD,LATS1,MBNL1,NDIFP2,PANK1,PATL1,PTPN1,SORL1,SP3,SSH1,TET3,UHRF1
miR-292-5p (and other miRNAs w/seed)	mature microRNA	-0.588	2.99E-02	ADORA1,C11orf58,CUL3,DCAF12,PDE4DIP,RAP2C,RCAN2,SET,SLC7A1,ZNRF1
miR-6096 (miRNAs w/seed UUUACAG)	mature microRNA		3.00E-02	ADAM10,MBNL1
POLR2F	transcription regulator		3.00E-02	CXCR5,LCK
cobalt	chemical toxicant		3.00E-02	IREB2,TFF1
miR-153 (and other miRNAs w/seed UG)	mature microRNA	-1.056	3.04E-02	ADD1,ANKRD50,APLP2,ARID1A,C17orf75,CCSAP,CRTC1,EPDR1,LATS1,RAB7A,RCAN2,SORL1,SP3,SSH1,TET3,USP28
miR-26a-5p (and other miRNAs w/seed)	mature microRNA	-0.434	3.18E-02	ACERS,ADAM12,ANKRD50,ARHGAP26,ELAVL3,GRB10,ITGA4,ITPRIP,MAPK6,PANK1,PLBD2,PLC1,PLEKH11,RAP1A,RAP2C,RDH14,SLC7A1,TET3,VPS13C
glucosamine	chemical - endogenous		3.23E-02	ACADM,ASS1,GPD1
miR-374c-5p (and other miRNAs w/seed)	mature microRNA		3.46E-02	C11orf58,TMOD3
NR2C2	ligand-dependent nucle		3.46E-02	DR1,TFF1
miR-182-5p (and other miRNAs w/seed)	mature microRNA	1.525	3.50E-02	ACERS,ADAM10,CRTC1,DCAF12,DR1,ESYT1,FAM108B1,FLNB,ITGA4,LRP10,MCMBP,PI4K2A,PLCB4,PLEKH48,RAB10,RCAN3,RNF183,SLC35A5,SP3,SSH1,THBS2,TMEM127,ZNRF1
miR-4707-3p (miRNAs w/seed GCCCG)	mature microRNA	0.290	3.61E-02	C17orf75,CRTC1,EHD3,GRB10,H1FO,IGF2R,PYCRL,TNFRSF1B
miR-125b-5p (and other miRNAs w/seed)	mature microRNA	-0.930	3.68E-02	AKT1S1,ANKRD50,ARHGAP1,CD248,CRTC1,DEM1,ESYT1,FAM213A,GRB10,IL6R,NRM,PLEKH48,PM22,SLC7A1,STMN3,TET3,THEMIS2,TL3,TMEM63A,TNFRSF1B
miR-495-3p (and other miRNAs w/seed)	mature microRNA	1.602	3.71E-02	ACTA1,ACTR1A,ADAM12,C11orf58,C17orf75,GPD1,IREB2,MBNL1,MCMBP,NDIFP2,PLCL1,POLDIP3,PPP1CB,SET,SP3,TET3,THBS2,TNFRSF1B
miR-217-5p (and other miRNAs w/seed)	mature microRNA	-0.268	3.83E-02	ACERS,ADAM12,ANKRD50,ARID1A,ATF1,CHPF,CLIC4,PPP1CB,PSMF1,SSH1
ADAM17	peptidase		3.93E-02	ACTA1,ADAM12
miR-514a-3p (and other miRNAs w/seed)	mature microRNA		3.93E-02	FAM108B1,PLCL1
miR-3182 (miRNAs w/seed CUUCUGU)	mature microRNA		3.93E-02	ANKRD50,NDIFP2
miR-320e (miRNAs w/seed AAGCUGG)	mature microRNA		4.04E-02	ADAM12,IL6R,NDIFP2
miR-129-5p (miRNAs w/seed UUUUUG)	mature microRNA	-1.369	4.12E-02	ARHGAP26,ASH1L,ELAVL3,KDM2A,LMNA,MBNL1,PLEKH48,SLC7A1,SORL1,SP3,SSH1,ZNRF1
miR-136-5p (miRNAs w/seed CUUCAAU)	mature microRNA	-1.855	4.15E-02	ASH1L,CPD,PATL1,PPP1R18,RAP2C,SNAPC1,SNX1,TET3
moxestrol	chemical toxicant		4.20E-02	TFF1
PALLD	other		4.20E-02	ACTA1
Cyclin D	group		4.20E-02	MYBL2
RAB7B	enzyme		4.20E-02	IGF2R
PRCF1	transcription regulator		4.20E-02	TLE3
Hdac1	enzyme		4.20E-02	MYBL2
SI	enzyme		4.20E-02	MYO1A
BCAS3	other		4.20E-02	TFF1
ADH1C	enzyme		4.20E-02	ACTA1
PAD2	enzyme		4.20E-02	TNFRSF1B
CHTOP	other		4.20E-02	TFF1
ADI PEG20	biologic drug		4.20E-02	ASS1
RBBP5	other		4.20E-02	TFF1
ERCC2	enzyme		4.20E-02	TFF1
ACTC1	enzyme		4.20E-02	ACTA1
CDKN3	phosphatase		4.20E-02	IGF2R
miR-607 (miRNAs w/seed UUCAAAU)	mature microRNA		4.20E-02	TSPAN13
RILP	other		4.20E-02	IGF2R
AMBN	growth factor		4.20E-02	TNFRSF1B
HIST3H3	other		4.20E-02	TFF1
LTK	kinase		4.20E-02	ACTA1
NCOA5	other		4.20E-02	TFF1
USP2	peptidase		4.20E-02	ITCH
NCOA4	transcription regulator		4.20E-02	TFF1
LAMP2	enzyme		4.20E-02	IGF2R
KLK6	peptidase		4.20E-02	ADAM10
FRMT1	enzyme		4.20E-02	TFF1
CAPN1	peptidase		4.20E-02	PTPN1
ADD2	other		4.20E-02	ADD1
isoflavone	chemical drug		4.20E-02	ESR2
Mn2+	chemical - endogenous		4.20E-02	ATP13A2
miR-148b-3p (and other miRNAs w/seed)	mature microRNA	-1.534	4.39E-02	ATP6AP2,CPD,FMNL3,IL6ST,MFA2,PATL1,PLEKH11,PPARD,PPP1CB,SOS2,TMEM127,TNFRSF1B,TNPO3,TOMM70A,UHRF1,ZNRF1
miR-3675-5p (miRNAs w/seed AUGGG)	mature microRNA	-0.855	4.42E-02	ABHD4,C17orf75,PATL1,SF3A1,SIGLEC14
miR-4671-3p (miRNAs w/seed UAGUGG)	mature microRNA	0.000	4.46E-02	CDK2AP2,CYP2U1,MAPK6,PTPN1
MYC	transcription regulator	0.072	4.48E-02	ACTA1,ADD1,ASS1,CAPN1,CLIC4,CPD,IREB2,MCM5,PFKL,PFKP,PKM,POLD1,PPARD,RAB10,SEPHS2,SLC1A5,SP3,THBS2,VARS
INSR	kinase		4.56E-02	ACADM,ACTA1,IGGAP1,LRP10,MCM5,MYBL2,RAB7A,THBS2,UHRF1,UQCRC1
miR-3180-3p (and other miRNAs w/seed)	mature microRNA	-0.160	4.63E-02	AKT1S1,CRTC1,ELAVL3,FLNB,FMNL3,GRB10,LATS1,TET3,ZNF653
miR-661 (miRNAs w/seed GCCUGG)	mature microRNA	-1.900	4.82E-02	ADAM12,AGMAT,CXCL16,ELAVL3,IL6R,JAK3,MCM5,PATL1,PLA2G6,PM2,PSMF1,TMEM127
miR-590-3p (miRNAs w/seed AAUUUUU)	mature microRNA	1.064	4.89E-02	ACERS,ADAM12,ASH1L,C11orf58,CUL3,DR1,FAM213A,FMNL3,IL6ST,KDM2A,LATS1,MAPK6,MBNL1,NDIFP2,PANK1,RAP1A,SP3,SPTLC1,TMEM127,TMOD3,TNPO3,UHRF1BP1L,WDR59,ZNRF1
miR-4527 (and other miRNAs w/seed G)	mature microRNA	0.106	4.91E-02	DEM1,ESR2,FLNB,PSMF1
Calcineurin protein(s)	complex		4.94E-02	CBLB,ITCH,MYO1A
miR-1228-3p (miRNAs w/seed CACACG)	mature microRNA		4.94E-02	IL6R,SNAPC1,VPS13C
miR-297a-5p (and other miRNAs w/seed)	mature microRNA		4.96E-02	FAM108B1,VPS13C
miR-3589 (and other miRNAs w/seed A)	mature microRNA		4.96E-02	FDT1,PLCB4
TFAM	transcription regulator		4.96E-02	ACADM,PFKP
trabectedin	chemical drug		4.96E-02	H1FX,MCM5

miR-3150b-3p (and other miRNAs w/seed)	mature microRNA	-1.987	5.15E-02	FMNL3,IQGAP1,LMNA,PPP1R18
miR-197-5p (and other miRNAs w/seed)	mature microRNA	-1.974	6.67E-02	AGPAT1,APLP2,GPD1,SF3A1
miR-31-5p (and other miRNAs w/seed)	mature microRNA	-1.796	7.41E-02	ARID1A,C16orf5,GRB10,RP10,PANK1,RNF183,SNX1,SSH1,USP28,YLPM1
miR-3072 (and other miRNAs w/seed)	mature microRNA	-1.915	9.02E-02	ADORA1,ARHGAP26,ARRDC2,CHPF,CRTC1,ELAVL3,JAK3,PYCRL,THBS2,TMEM63A
miR-185-5p (and other miRNAs w/seed)	mature microRNA	-1.832	9.56E-02	ARHGEF1,ARID1A,ELAVL3,IGF2R,KDM2A,PLEKHA8,SORL1,TMEM165,TMEM214
miR-496 (and other miRNAs w/seed)	mature microRNA	1.929	1.00E-01	ADAM10,ADAM12,ITCH,MBNL1
miR-1914-5p (miRNAs w/seed)	CCUGU	-1.982	1.10E-01	ARIH2,CDC127,HPS1,MYBPHL
miR-4717-5p (miRNAs w/seed)	AGGCC	-1.964	1.32E-01	ABHD4,ESR2,FBXO31,JAK3
miR-3162-3p (miRNAs w/seed)	CCCUA	-1.962	1.40E-01	ARIH2,GPD1,POLDIP3,TSR1
SMARCA4	transcription regulator	1.982	1.44E-01	ACTA1,CXCR5,FADS3,FLNB,LDB1,LMNA,TFF1
miR-4667-5p (and other miRNAs w/seed)	mature microRNA	-1.912	1.63E-01	EHD3,ENOPH1,GPD1,SLC7A1,TET3,TMEM127,TMEM63A
miR-1909-3p (and other miRNAs w/seed)	mature microRNA	-1.860	1.83E-01	CRTC1,ELAVL3,JAK3,PLXDC1,PMM2,PNKD,PPARD,PYCRL,RAB7A,STMN3
miR-370-3p (and other miRNAs w/seed)	mature microRNA	-1.782	1.91E-01	ACTR1A,CXCR5,CYP2U1,EHD3,ESYT1,FDFT1,SLC7A1,TET3,TMEM127
miR-3083-5p (and other miRNAs w/seed)	mature microRNA	-1.914	2.10E-01	ARRDC2,CMTM3,CRTC1,FBXO31,HPS1,LMNA,PLA2G6,PMM2,SEC22C,TIMELESS,TMEM127
CD38	enzyme	1.980	2.33E-01	ASS1,IL6R,PFKL,PFKP
APP	other	1.910	2.41E-01	ACTA1,APLP2,ATF1,CUL3,IGF2R,IL6ST,ITGA4,LATS1,PFKP,PPARD,SET,TLR3,ZNRF1
miR-4267 (miRNAs w/seed)	CCAGCUC	-1.982	2.56E-01	ITPRIP,PMPCA,POLDIP3,PYCRL
miR-4779 (miRNAs w/seed)	AGGAGGG	-1.960	2.84E-01	ADD1,KDM2A,LRP10,TMEM214
miR-4690-3p (and other miRNAs w/seed)	mature microRNA	-1.961	3.37E-01	C16orf5,PKM,RAB7A,TMEM127
EGFR	kinase	1.982	3.49E-01	ACTA1,CUL3,ESR2,MYBL2,TCOF1
miR-4300 (and other miRNAs w/seed)	mature microRNA	-1.988	3.68E-01	ARRDC2,PSMF1,TCOF1,LUBE2V1
miR-3618-3p (miRNAs w/seed)	GAGGG	-1.974	3.90E-01	PNKD,PPARD,SF3A1,TET3
miR-378a-3p (and other miRNAs w/seed)	mature microRNA	-1.974	4.43E-01	APLP2,ARRDC2,DCAF12,UHRF1
miR-343 (and other miRNAs w/seed)	CU	-1.982	4.53E-01	ACTR1A,ASH1L,LMNA,ZNRF1
miR-4747-5p (and other miRNAs w/seed)	mature microRNA	-1.982	4.67E-01	GPD1,JAK3,PATL1,RRNAD1
miR-4716-3p (miRNAs w/seed)	AGGGG	-1.991	4.85E-01	AGPAT1,IGF2R,TLR3,VPS13C
IL13	cytokine	1.982	1.00E00	ADORA1,GSN,PFKP,TNFRSF1B
IGF1	growth factor	1.954	1.00E00	ACTA1,ESR2,GPD1,TFF1
OSM	cytokine	-1.880	1.00E00	IL6R,IL6ST,PLCB4,TLR3
miR-329 (and other miRNAs w/seed)	AC	-1.964	1.00E00	PDE4DIP,PTPN1,SSH1,ZNRF1
miR-384-3p (and other miRNAs w/seed)	mature microRNA	-1.982	1.00E00	CPD,RCAN2,TET3,TSR1
miR-503-5p (miRNAs w/seed)	AGCAGC	-1.987	1.00E00	ASH1L,CHPF,KIF23,SRPR