

Online Resource Table 1

Differentially expressed miRNAs after treatment with methylprednisolone (MP), rapamycin (RAPA) and in combination (MP+RAPA). In bold are the miRNAs up- or down-regulated specifically during the co-treatment.

miRNA	<i>Relative Expression</i>		
	MP	RAPA	MP+RAPA
hsa-let-7a	1.00	2.80	2.21
hsa-let-7d-5p	1.00	7.09	4.21
hsa-let-7e-5p	1.00	1.77	2.29
hsa-miR-101-3p	97.84	16.06	36.31
hsa-miR-107	0.05	1.00	2.03
hsa-miR-125a-5p	1.94	0.02	1.65
hsa-miR-126-3p	1.00	1.55	1.59
hsa-miR-128a-3p	1.00	2.33	2.32
hsa-miR-130a-3p	5.55	10.12	9.31
hsa-miR-130b-3p	1.00	2.75	1.97
hsa-miR-133a-3p	7.15	9.35	0.34
hsa-miR-135b-3p	1.00	80.37	3.01
hsa-miR-138-5p	1.00	0.45	0.01
hsa-miR-139-5p	0.04	0.07	2.88
hsa-miR-140-3p	1.00	1.51	1.00
hsa-miR-141-3p	23.21	23.40	3.01
hsa-miR-142-5p	1.00	0.37	1.00
hsa-miR-146a-5p	2.15	2.24	3.22
hsa-miR-146b-5p	1.60	1.60	1.84
hsa-miR-147b	1.00	114.01	3.01
hsa-miR-148a-3p	1.91	2.61	2.36
hsa-miR-148b-3p	3.77	7.51	1.54

hsa-miR-149-5p	3.07	6.39	0.05
hsa-miR-150-5p	1.75	3.14	5.58
hsa-miR-152-3p	0.01	0.02	0.03
hsa-miR-155-5p	1.74	2.34	2.72
hsa-miR-15a-5p	0.30	0.06	0.20
hsa-miR-15b-5p	1.00	2.17	2.57
hsa-miR-181a-5p	1.00	1.92	3.72
hsa-miR-181c-5p	0.44	1.00	1.00
hsa-miR-182-5p	2.14	4.87	7.07
hsa-miR-183-5p	0.41	0.19	1.00
hsa-miR-185-5p	7.86	7.93	12.45
hsa-miR-192-5p	0.40	1.00	1.00
hsa-miR-194-5p	0.01	1.00	0.03
hsa-miR-197-3p	1.00	3.34	4.83
hsa-miR-199a-3p	1.00	0.40	0.31
hsa-miR-19a-3p	1.00	1.00	0.50
hsa-miR-200b-3p	2.43	1.00	1.00
hsa-miR-203-3p	51.84	2.08	3.01
hsa-miR-20a-5p	1.00	2.14	1.55
hsa-miR-21-5p	1.00	0.25	1.53
hsa-miR-210-3p	1.00	0.19	0.27
hsa-miR-212-3p	5.17	3.45	4.82
hsa-miR-219-1-3p	26.27	31.05	35.06
hsa-miR-221-3p	2.70	4.56	5.93
hsa-miR-222-3p	1.00	1.68	2.36
hsa-miR-223-3p	2.24	2.27	3.57
hsa-miR-25-3p	1.00	2.47	1.84
hsa-miR-26a-5p	1.87	3.13	2.81
hsa-miR-26b-5p	1.00	1.97	1.00

hsa-miR-27a-3a	1.00	1.85	5.01
hsa-miR-27b-3p	0.01	1.00	0.01
hsa-miR-28-5p	1.00	2.93	1.00
hsa-miR-28-3p	1.00	1.74	2.13
hsa-miR-29b-3p	33.20	2.08	3.01
hsa-miR-302a-3p	0.35	0.20	1.00
hsa-miR-302c-3p	0.06	0.00	0.08
hsa-miR-30b-5p	1.00	1.00	1.69
hsa-miR-30c-5p	1.00	1.00	1.65
hsa-miR-32-5p	0.28	0.44	1.00
hsa-miR-324-3p	0.50	1.00	1.00
hsa-miR-324-5p	1.00	2.02	1.00
hsa-miR-328-3p	1.00	5.71	11.36
hsa-miR-330-3p	2.71	3.09	2.86
hsa-miR-330-5p	0.04	0.08	0.12
hsa-miR-331-3p	1.00	1.00	1.77
hsa-miR-331-5p	1.00	0.06	0.08
hsa-miR-339-5p	1.00	0.36	1.65
hsa-miR-342-3p	1.00	1.86	2.17
hsa-miR-345-5p	1.00	1.00	2.05
hsa-miR-346	0.27	0.00	0.00
hsa-miR-361-5p	0.19	1.00	1.00
hsa-miR-362-3p	0.17	0.02	1.00
hsa-miR-365a-3p	1.00	0.33	1.00
hsa-miR-367-3p	1.00	0.37	0.48
hsa-miR-374a-5p	6071.45	5487.42	4857.82
hsa-miR-422a	1.82	1.00	1.55
hsa-miR-423-5p	2.82	2.58	9.46
hsa-miR-424-5p	0.03	0.05	2.50

hsa-miR-450b-5p	0.09	21.74	0.24
hsa-miR-454-3p	1.00	1.72	1.00
hsa-miR-455-5p	0.01	1.00	1.00
hsa-miR-455-3p	1.00	0.15	1.00
hsa-miR-483-5p	0.21	0.18	0.35
hsa-miR-487a-3p	0.34	0.06	1.00
hsa-miR-500a-5p	2.31	3.39	1.56
hsa-miR-501-5p	1.00	0.40	1.00
hsa-miR-502-3p	4.34	4.88	0.29
hsa-miR-505-3p	1.00	0.19	7.73
hsa-miR-517b-3p	0.49	0.09	1.00
hsa-miR-518f-3p	272.12	2.08	3.01
hsa-miR-519a-3p	1.00	2.08	20671.62
hsa-miR-522-3p	23492.44	2.08	4339.22
hsa-miR-523-3p	52.77	2.08	7429.95
hsa-miR-532-5p	1193.71	2.08	609.87
hsa-miR-532-3p	833.87	2.08	2340.30
hsa-miR-542-3p	2.28	2.16	0.16
hsa-miR-542-5p	1.00	2.08	92.65
hsa-miR-548a-3p	1.00	64.46	3.01
hsa-miR-548d-5p	0.24	0.37	12.65
hsa-miR-574-3p	6.30	2.62	2.50
hsa-miR-576-3p	0.01	1.00	1.00
hsa-miR-579	1.00	73.11	3.01
hsa-miR-590-5p	4489.20	3673.70	1908.54
hsa-miR-616-5p	1.00	2.08	67.03
hsa-miR-618	1693.82	963.47	24523.69
hsa-miR-625-5p	115.24	195.27	225.15
hsa-miR-627	2377.58	3131.03	2076.76

hsa-miR-628-5p	9887.29	1902.38	103373.26
hsa-miR-636	161.02	309.80	429.06
hsa-miR-642-5p	75.71	95.17	10.15
hsa-miR-652-3p	201.23	675.03	507.16
hsa-miR-660-5p	1333.54	615.23	653.08
hsa-miR-744-5p	1.00	1.00	1.58
hsa-miR-886-3p	1.00	1.00	0.10
hsa-miR-886-5p	1.00	1.00	0.24
hsa-miR-92a-3p	14131.77	26428.08	37950.82

Online Resource Table 2.

MiRpath analyses: miRNAs potentially involved in the deregulation of MAPK and ErbB signaling pathway and relatives target genes.

MAPK signaling pathway	
miRNAs	n° Target Genes
hsa-miR-422a	2
hsa-miR-331-3p	8
hsa-miR-423-5p	13
hsa-miR-107	6
hsa-miR-222-3p	4
hsa-miR-141-3p	3
hsa-miR-182-5p	3
hsa-miR-125a-5p	4
hsa-miR-342-3p	2
hsa-miR-223-3p	1
hsa-miR-328-3p	6
hsa-miR-625-5p	7
hsa-miR-424-5p	9
hsa-miR-15b-5p	9
hsa-miR-542-5p	8
hsa-miR-197-3p	4
hsa-miR-101-3p	3
hsa-miR-532-3p	4
hsa-miR-185-5p	3
hsa-let-7e-5p	2
hsa-let-7d-5p	2
hsa-miR-221-3p	1
hsa-miR-590-5p	2
hsa-miR-505-3p	2
hsa-miR-28-3p	1
hsa-miR-532-5p	2
hsa-miR-519a-3p	1
hsa-miR-548a-3p	1
hsa-miR-29b-3p	2
hsa-miR-25-3p	1
hsa-miR-92a-3p	1
hsa-miR-518f-3p	1
hsa-miR-135b-3p	3
hsa-miR-148b-3p	3
hsa-miR-130b-3p	1
hsa-miR-148a-3p	3
hsa-miR-130a-3p	1
hsa-miR-146b-5p	1
hsa-miR-146a-5p	1
hsa-miR-21-5p	1

MAPK signaling pathway**List of Genes**

CACNA1I	MAP2K4
FGF11	TNF
AKT2	RELA
NLK	CACNA1D
DUSP10	NFATC3
RASGRP1	FGFR1
MAPK8	DUSP16
TRAF6	FGF16
MAPKAPK3	FGF7
PDGFB	RAP1B
PRKACA	TGFBR2
CACNB1	ELK1
TRAF2	PLA2G4C
FLNA	ARRB1
CACNA1E	PRKACB
MAPT	RPS6KA2
CACNG4	AKT3
SOS1	MAPK8IP3
DUSP8	FGF8
FGF2	STMN1
FGF12	FGF10
NTRK2	PPP3R1
NTF3	CHUK
CACNG8	MAP4K3
PDGFRA	RPS6KA1
TGFBR1	RASGRP2
CACNA2D3	GADD45A
NFKB1	MAP3K13
SOS2	DUSP7
MAP4K2	FAS
ATF2	RPS6KA3
RAC2	TGFB2
PPP5C	CACNA1H
FGFR3	MRAS
ELK4	MAP3K4
CRK	FASLG
MAPK7	DUSP5
MAP2K7	HSPA1B
CACNB4	TAOK1
FGF5	MAP2K6

RASGRF2	RAP1A
DUSP6	CACNA2D4
MAPK14	MKNK1
FGF18	KRAS
CACNA2D2	CACNG7
CACNA2D1	CDC42
CACNB2	AC008687.1
BDNF	CACNA1S
MKNK2	HSPA1L

ErbBsignalingpathway	
miRNAs	n° Target Genes
hsa-miR-138-5p	4
hsa-miR-149-5p	1
hsa-miR-152-3p	4
hsa-miR-19a-3p	1
hsa-miR-331-5p	1
hsa-miR-199a-3p	1
hsa-miR-27b-3p	3
hsa-miR-367-3p	2
hsa-miR-330-5p	1
hsa-miR-302c-3p	2
hsa-miR-346	1
hsa-miR-483-5p	1
hsa-miR-15a-5p	1
hsa-miR-194-5p	1

ErbBsignalingpathway	
List of Genes	
GSK3B	GAB1
HBEGF	SHC4
SOS2	AKT3
PIK3CB	PAK6
TGFA	PIK3CA
EIF4EBP1	MAP2K4
KRAS	GRB2
PAK3	ELK1
STAT5B	SOS1
CBLB	MAPK3
PIK3R3	PAK6

Online Resource Table 3.

Putative targets genes of miR-331-3p predicted by Diana-TargetScan.

TargetScan Predicted Interactions for hsa-miR-331-3p	
GENE	Context Score
CACNG8	-0.757
MAP4K2	-0.426
MAP2K7	-0.736
FGF11	-0.425
CACNB1	-0.852
DUSP5	-0.563
TNF	-0.407
CACNA1D	-0.630