

Supplementary Material 1: TaqMan stem-loop primers and mature miRNAs sequences

hsa-mir-10b-5p

- assay ID: 002218
- Mature miRNA Sequence: UACCCUGUAGAACCGAAUUUGUG
- Stem-loop Accession number: MI0000267
- Stem-loop Sequence
CCAGAGGUUGUAAACGUUGUCUAUAUAUACCCUGUAGAACCGAAUUUGUGUGGUAUCCGUAGUCACAGAUU
CGAUUCUAGGGGAAUAUAUGGUCGAUGCAAAAACUUC

hsa-mir-17-5p

- assay ID: 002308
- Mature miRNA Sequence: CAAAGUGCUUACAGUGCAGGUAG
- Stem-loop Accession number: MI0000071
- Stem-loop Sequence
GUCAGAAUAAUGUCAAGUGCUUACAGUGCAGGUAGUGAUUGUGCAUCUACUGCAGUGAAGGCACUUGUAG
CAUUAUGGUGAC

hsa-mir-31-5p

- assay ID: 002279
- Mature miRNA Sequence: AGGCAAGAUUGCUGGCAUAGCU
- Stem-loop Accession number: MI0000089
- Stem-loop Sequence
GGAGAGGAGGCAAGAUUGCUGGCAUAGCUGUUGAACUGGGAACCGCUAUGCCAACAUUUGCCAUCUUCC

hsa-mir-144-3p

- assay ID: 002676
- Mature miRNA Sequence: UACAGUAUAGAUGAUGUACU
- Stem-loop Accession number: MI0000460
- Stem-loop Sequence
UGGGGCCUGGCGUGGAUAUCAUAUACUGUAAGUUUGCGAUGAGACACUACAGUAUAGAUGAUGUACUA
GUCCGGGCACCCC

hsa-mir-146a-5p

- assay ID: 000468
- Mature miRNA Sequence: UGAGAACUGAAUCCAUGGGUU
- Stem-loop Accession number: MI0000477
- Stem-loop Sequence
CCGAUGUGUAUCCUCAGCUUUGAGAACUGAAUCCAUGGGUUGUGUCAGUGUCAGACCUCUGAAAUUCAGUU
CUUCAGCUGGGAUUCUCUGUCAUCGU

hsa-mir-182-5p

- assay ID: 002334
- mature miRNA sequence: UUUGGCAAUGGUAGAACUCACACU
- Stem-loop Accession number: MI0000272
- Stem-loop Sequence
GAGCUGCUUGCCUCCCCGUUUUUGGCAAUGGUAGAACUCACACUGGUGAGGUAAACAGGAUCCGGUGGUUC
UAGACUUGCCAACUAUGGGGCGAGGACUCAGCCGGCAC

hsa-mir-589-5p

- assay ID: 002409
- Mature miRNA Sequence: UGAGAACCACGUCUCUCUGAG
- Stem-loop Accession number: MI0003599
- Stem-loop Sequence
UCCAGCCUGUGCCCAGCAGCCCCUGAGAACCACGUCUCUCUGAGCUGGGUACUGCCUGUUCAGAACAAUGCC
GGUUCCCAGACGCUGCCAGCUGGCC

hsa-mir-1273c

- assay ID: 243951_mat
- Mature miRNA Sequence: GGCGACAAAACGAGACCCUGUC
- Stem-loop Accession number: MI0014171
- Stem-loop Sequence
UGCAGCCUGGGCGACAAAACGAGACCCUGUCUUUUUUUUUUUCUGAGACAGAGUCUCGUUCUGUUGCCCAAG
CUGGA

hsa-mir-3135b

- assay ID: 464863_mat
- Mature miRNA Sequence: GGCUGGAGCGAGUGCAGUGGUG
- Stem-loop Accession number: MI0016809
- Stem-loop Sequence:
UGCCCAGGCUGGAGCGAGUGCAGUGGUGCAGUCAGUCCUAGCUCACUGCAGCCUCGAACUCCUGGGCU

hsa-mir-3605-5p

- assay ID: 463752_mat
- Mature miRNA Sequence: UGAGGAUGGAUAGCAAGGAAGCC
- Stem-loop Accession number: MI0015995
- Stem-loop Sequence
ACUUUAUACGUGUAAUUGUGAUGAGGAUGGAUAGCAAGGAAGCCGCUCCACCUGACCCUCACGGCCUCCGUG
UUACCUGUCCUCUAGGUGGGACGCUCG

hsa-mir-4506

- assay ID: 464024_mat
- Mature miRNA Sequence: AAAUGGGUGGUCUGAGGCAA
- Stem-loop Accession number: MI0016869
- Stem-loop Sequence
UGGCCUCUGCCAUCAGACCAUCUGGGUUAAGUUUGGCUCCAUCUUUAUGAAAUGGGUGGUCUGAGGCAAGU
GGUCU

Supplementary Tables 1: Correlations among individual miRNAs

Correlations among individual miRNAs expression										
Before rejection										
Correlation coefficients	miR-144	miR-589	miR-146	miR-182	miR-3135	miR-10	miR-31	miR-17	miR-1273	miR-3605
miR-589	0.50									
miR-146	0.80	0.76								
miR-182	0.85	0.64	0.74							
miR-3135b	0.06	0.50	0.30	0.20						
miR-10	0.57	0.60	0.58	0.64	0.30					
miR-31	-0.06	0.32	0.13	-0.13	0.24	0.11				
miR-17	0.58	0.61	0.57	0.73	0.25	0.68	-0.08			
miR-1273	0.28	0.42	0.29	0.31	0.19	0.71	0.24	0.49		
miR-3605	-0.11	-0.14	-0.23	0.03	-0.14	0.03	-0.14	0.09	0.42	
miR-4506	-0.08	-0.07	-0.20	0.04	0.28	0.16	-0.02	0.07	0.29	0.34
p-values	miR-144	miR-589	miR-146	miR-182	miR-3135	miR-10	miR-31	miR-17	miR-1273	miR-3605
m589.norm.BR	0.018									
m146.norm.BR	<0.001	<0.001								
m182.norm.BR	<0.001	0.001	<0.001							
m3135.norm.BR	0.788	0.019	0.174	0.363						
m10.norm.BR	0.006	0.003	0.004	0.001	0.183					
m31.norm.BR	0.778	0.144	0.560	0.575	0.287	0.615				
m17.norm.BR	0.004	0.003	0.006	<0.001	0.264	<0.001	0.729			
m1273.norm.BR	0.213	0.049	0.195	0.155	0.398	<0.001	0.272	0.020		
m3605.norm.BR	0.616	0.520	0.308	0.909	0.527	0.885	0.544	0.698	0.050	
m4506.norm.BR	0.717	0.760	0.385	0.877	0.219	0.497	0.917	0.772	0.209	0.138
During rejection										
korelační koeficienty	miR-144	miR-589	miR-146	miR-182	miR-3135	miR-10	miR-31	miR-17	miR-1273	miR-3605
miR-589	0.73									
miR-146	0.45	0.22								
miR-182	0.94	0.76	0.44							
miR-3135b	0.56	0.49	0.40	0.49						
miR-10	0.58	0.60	0.24	0.59	0.34					
miR-31	0.19	0.38	0.02	0.26	0.24	0.55				
miR-17	0.82	0.79	0.33	0.81	0.52	0.71	0.47			
miR-1273	0.52	0.57	0.11	0.43	0.59	0.54	0.53	0.72		
miR-3605	0.61	0.67	-0.03	0.53	0.33	0.64	0.41	0.73	0.78	
miR-4506	0.39	0.52	0.25	0.34	0.56	0.72	0.42	0.52	0.62	0.41
p-values	miR-144	miR-589	miR-146	miR-182	miR-3135	miR-10	miR-31	miR-17	miR-1273	miR-3605
miR-589	<0.001									
miR-146	0.035	0.323								
miR-182	<0.001	<0.001	0.039							
miR-3135b	0.006	0.019	0.062	0.022						
miR-10	0.005	0.003	0.292	0.004	0.126					
miR-31	0.410	0.078	0.917	0.233	0.276	0.008				
miR-17	<0.001	<0.001	0.140	<0.001	0.014	<0.001	0.026			
miR-1273	0.014	0.006	0.627	0.048	0.003	0.009	0.011	<0.001		
miR-3605	0.002	<0.001	0.883	0.011	0.130	0.001	0.058	<0.001	<0.001	
miR-4506	0.074	0.013	0.256	0.126	0.007	<0.001	0.054	0.013	0.002	0.060
After rejection										
korelační koeficienty	miR-144	miR-589	miR-146	miR-182	miR-3135	miR-10	miR-31	miR-17	miR-1273	miR-3605
miR-589	0.14									
miR-146	0.43	0.37								
miR-182	0.74	0.22	0.44							
miR-3135b	-0.16	0.32	0.22	-0.01						
miR-10	0.35	0.32	0.38	0.43	0.10					
miR-31	0.15	0.26	0.10	-0.08	-0.01	0.07				
miR-17	0.52	0.00	0.53	0.61	0.19	0.20	-0.09			
miR-1273	0.32	0.11	0.08	0.04	0.24	0.12	0.27	0.33		
miR-3605	-0.01	-0.18	0.14	0.08	0.01	0.13	-0.06	0.20	0.33	
miR-4506	-0.06	0.02	0.09	-0.18	-0.20	0.26	0.00	-0.01	0.26	0.43
p-values	miR-144	miR-589	miR-146	miR-182	miR-3135	miR-10	miR-31	miR-17	miR-1273	miR-3605
miR-589	0.548									
miR-146	0.044	0.093								
miR-182	<0.001	0.335	0.043							
miR-3135b	0.477	0.144	0.328	0.982						
miR-10	0.108	0.152	0.082	0.044	0.643					
miR-31	0.501	0.246	0.664	0.711	0.973	0.749				
miR-17	0.013	0.993	0.010	0.003	0.394	0.381	0.686			
miR-1273	0.147	0.624	0.739	0.876	0.278	0.583	0.218	0.135		
miR-3605	0.980	0.424	0.542	0.714	0.953	0.567	0.805	0.373	0.133	
miR-4506	0.797	0.934	0.694	0.414	0.378	0.243	0.999	0.969	0.251	0.044

Supplementary Tables 2: ROC analysis for individual miRNAs

	β_0 estimate	β_1 estimate	OR estimate	p
miR-144	-1,147	-0,226	0,798	0,246
miR-589	0,849	0,098	1,103	0,708
miR-146	0,964	0,418	1,519	0,290
miR-182	-1,612	-0,245	0,783	0,273
miR-3135b	-0,092	-0,019	0,981	0,970
miR-10	0,097	0,018	1,018	0,944
miR-31	1,862	0,398	1,490	0,167
miR-17	0,063	0,099	1,104	0,790
miR-1273	3,225	0,414	1,513	0,242
miR-3605	4,620	0,530	1,699	0,134
miR-4506	-0,537	-0,112	0,894	0,652

Supplementary Tables 3: Principal component analysis workflow

A: Descriptive statistics

All miRNA levels were standardized. Levels of miRNAs, but not of RNU48, had to be first logarithmically transformed (marked with *)

	mean	SD
stand(miR144*)	-5,07	1,63
stand(miR589*)	-8,68	1,18
stand(miR146*)	-2,31	0,81
stand(miR182*)	-6,58	1,42
stand(miR3135*)	-4,83	0,61
stand(RNU48)	26,26	1,50
stand(miR10*)	-5,36	1,17
stand(miR31*)	-4,66	1,14
stand(miR17*)	-0,64	0,83
stand(miR1273*)	-7,78	0,94
stand(miR3605*)	-8,73	1,00
stand(miR4506*)	-4,79	1,26

B: Loadings representing coefficients of linear combinations for all principal components

	Principal components											
	Comp.1	Comp.2	Comp.3	Comp.4	Comp.5	Comp.6	Comp.7	Comp.8	Comp.9	Comp.10	Comp.11	Comp.12
stand(miR144*)	0,35	0,29	0,15	0,38	0,06	0,17	0,04	0,12	0,00	0,03	0,24	0,72
stand(miR589*)	0,32	0,20	-0,17	-0,29	-0,26	0,06	-0,30	-0,35	-0,65	-0,16	-0,04	0,06
stand(miR146*)	0,25	0,42	-0,19	-0,18	-0,06	-0,11	0,78	0,14	-0,03	-0,06	-0,15	-0,14
stand(miR182*)	0,35	0,32	0,22	0,12	0,02	0,03	-0,26	0,33	-0,02	0,14	0,40	-0,59
stand(miR3135*)	0,25	-0,01	-0,34	-0,34	0,53	0,49	-0,12	0,01	0,18	0,32	-0,14	0,02
stand(RNU48)	0,22	-0,23	-0,25	0,73	-0,02	0,27	0,13	-0,22	-0,13	-0,02	-0,27	-0,29
stand(miR10*)	0,36	-0,07	0,03	0,03	-0,08	-0,59	-0,08	-0,26	0,15	0,61	-0,19	0,06
stand(miR31*)	0,17	-0,35	-0,51	-0,07	-0,50	-0,01	-0,09	0,53	0,09	0,03	0,13	0,11
stand(miR17*)	0,38	0,05	0,21	-0,07	-0,07	-0,04	-0,26	0,08	0,44	-0,53	-0,50	-0,01
stand(miR1273*)	0,32	-0,35	0,11	-0,19	-0,12	0,14	0,25	-0,47	0,30	-0,17	0,53	-0,06
stand(miR3605*)	0,16	-0,41	0,60	-0,17	-0,11	0,27	0,22	0,26	-0,33	0,22	-0,25	0,02
stand(miR4506*)	0,24	-0,35	-0,09	0,02	0,59	-0,45	0,04	0,20	-0,31	-0,32	0,13	0,03

C: ROC analysis for individual principal components

	β_0 estimate	β_1 estimate	OR estimate	p
Comp.1	0,000001	0,017	1,017	0,898
Comp.2	0,002239	-0,246	0,782	0,309
Comp.3	0,000000	-0,001	0,999	0,998
Comp.4	-0,018466	-0,771	0,462	0,042
Comp.5	0,001039	-0,586	0,557	0,103
Comp.6	0,000022	0,081	1,085	0,842
Comp.7	0,005040	0,939	2,556	0,064
Comp.8	-0,000027	0,175	1,191	0,729
Comp.9	-0,000003	0,091	1,096	0,875
Comp.10	0,000006	-0,120	0,887	0,855
Comp.11	-0,001641	-0,909	0,403	0,266
Comp.12	0,000016	0,491	1,634	0,788