

**Supplementary Table 1** miRNA with a correlation > 0.4 to the percentage of tubules with CIS cells

<b>Probe</b>	<b>Normal</b>	<b>CIS 30%</b>	<b>CIS 50%</b>	<b>CIS 100%</b>	<b>Correlation</b>
hsa-miR-496	-7,3895275	-5,6791575	-4,5200225	-1,989990575	0,999350466
hsa-miR-368	230,54825	316,1895	358,70575	509,54325	0,998667316
hsa-miR-495	63,556125	89,811475	108,620575	143,02625	0,997127872
hsa-miR-545	-1,72162	-1,07047125	-0,546201	0,3374305	0,99683454
hsa-miR-154	78,172025	98,748425	106,317675	131,54575	0,995469342
hsa-miR-101	753,59975	1053,293	1113,89975	1489,67	0,991329697
hsa-miR-376a	1003,56025	1242,125	1301,415	1766,765	0,990684637
hsa-miR-539	0,3374305	1,110919	2,642945	4,67062	0,988755116
hsa-miR-367	-3,3641125	84,826425	235,6845	395,4115	0,986564653
hsa-miR-146b	154,03425	180,4645	199,55875	281,36425	0,986516456
hsa-miR-371	-0,30242775	252,82475	969,39575	1916,78	0,982889033
hsa-miR-373	8,3565975	509,54325	1916,78	3520,31	0,981537615
NC2_00092197	-9,2305225	-7,9572875	-6,50032	-0,985457	0,978584137
hsa-miR-96	0,8715785	6,16729	17,85655	47,395775	0,977866255
hsa-miR-299-5p	128,01425	136,649	163,51275	190,59925	0,977694963
hsa-miR-302b*	-2,18566325	-1,03155475	4,25658	11,5359375	0,975204361
hsa-miR-629	11,015565	19,72785	26,26145	32,62495	0,973204308
hsa-miR-376b	54,4274	104,550425	140,94525	177,093	0,972913836
hsa-miR-183	1,1395025	3,51354075	16,98625	37,20925	0,971996437
hsa-miR-302b	-0,876216	25,858725	87,5603	128,01425	0,967052823

kshv-miR-K12-12	-5,34852	-2,82436975	-2,84627875	-0,4964505	0,966597427
hsa-miR-453	3,2645385	4,67062	4,67062	8,6864225	0,963745992
hsa-miR-302d	-1,3897065	27,662575	113,026225	167,8065	0,96342821
hsa-miR-577	-7,9572875	-7,3895275	-7,0385	-4,2423075	0,961080943
hsa-miR-675	-2,91424125	-2,84627875	-1,8367465	0,096331125	0,960176327
hsa-miR-302a*	-1,143483	30,490525	94,44025	129,66925	0,960164427
hsa-miR-377	341,8625	701,07525	647,419	1044,36775	0,958186446
hsa-miR-302a	-0,546201	45,380625	151,762	202,8455	0,952762989
hsa-miR-769-3p	10,0544575	10,0544575	11,8035375	15,43995	0,952553642
hsa-miR-193a	84,826425	143,02625	128,01425	210,2155	0,951215101
hsa-miR-563	-0,692483575	-0,608115375	-0,19996325	1,2703425	0,950188632
hsa-miR-372	9,69186	800,9415	3656,0025	5095,0325	0,949898203
hsa-miR-485-3p	-0,069562675	6,8465025	18,264425	23,10415	0,947791056
hsa-miR-557	143,02625	217,43825	316,1895	352,64825	0,9392663
hsa-miR-127	271,09125	464,6075	523,2045	608,66225	0,936557727
hsa-miR-302c	-0,84586275	4,151955	25,858725	33,9901	0,933135676
hsa-miR-640	0,260437	1,890884	1,2703425	3,658205	0,930757642
hsa-miR-182	57,297725	128,01425	405,09925	499,93975	0,930348773
hsa-miR-136	199,55875	395,4115	509,54325	577,02525	0,93000041
hsa-miR-146a	135,3785	123,88975	178,256	245,404	0,92823938
hsa-miR-596	-1,697939	-1,912207225	-0,759821775	0,402333	0,927181497
hsa-miR-558	-4,98954	-3,4961725	-2,4365395	-2,039221475	0,918174041

hsa-miR-154*	29,36315	35,3744	111,680925	136,649	0,913358786
hsa-miR-767-5p	-2,82436975	-1,17195525	5,670515	7,1500275	0,909394051
kshv-miR-K12-10b	6,951705	9,1607275	8,0684	20,351175	0,905782375
hsa-miR-373*	9,1607275	20,351175	15,062075	29,662675	0,901781702
hsa-miR-296	61,83345	91,019425	95,598425	104,978575	0,896479601
hsa-miR-620	-8,328515	-7,0385	-5,945805	-5,8063175	0,889660689
hsa-miR-130a	1053,293	969,39575	1137,485	1435,43	0,886817135
kshv-miR-K12-10a	8,6864225	12,9385725	9,41609	27,662575	0,880909371
hcmv-miR-US5-1	-2,5913085	-3,044365	-2,209322	-0,692483575	0,879626586
hsa-miR-424	5933,64	8427,245	8427,245	9331,45	0,879015194
hcmv-miR-US25-2-5p	-1,8367465	-2,3560685	-0,84586275	0,20295775	0,876235205
kshv-miR-K12-2	-3,4961725	-3,4555025	-3,4961725	-2,959125	0,874122483
NC2_00122731	-11,6895625	-10,7510425	-11,6895625	-3,4961725	0,873166327
hsa-miR-626	-5,2055	-5,1243375	-3,123635	-2,87860975	0,86769678
hsa-miR-638	2865,87	6295,4825	3257,2475	14484,5625	0,866633079
mr_1	7550,8625	14484,5625	19931,725	19931,725	0,862567381
hsa-miR-124a	13,2999275	10,93852	23,10415	26,81685	0,860657385
hsa-miR-526b	12,650175	9,41609	13,7076025	25,237475	0,857253351
hsa-miR-527	14,29695	15,062075	25,237475	25,858725	0,856538035
hsa-miR-142-5p	207,02575	154,03425	341,8625	418,9725	0,856327387
ebv-miR-BART17-5p	-3,123635	-3,1306	-3,24927	-0,759821775	0,851918673
hsa-miR-623	47,395775	66,401925	50,91215	91,019425	0,851436587

hsa-miR-105	-2,535021	-3,5855175	-2,489514	2,26147825	0,848455619
hsa-miR-561	-4,6504575	-5,2055	-3,2304675	-2,535021	0,845893857
hsa-miR-572	418,9725	665,71525	352,64825	1742,315	0,84426655
hsa-miR-487b	139,44825	147,28525	182,62	180,4645	0,837632206
hsa-miR-663	523,2045	446,55075	292,62375	2865,87	0,833239571
hur_2	333895,5	333895,5	366664,75	366664,75	0,824163384
hsa-miR-220	-4,2423075	-3,78544	-4,3259075	-2,7501405	0,819375346
kshv-miR-K12-11	-3,413975	-3,6127875	-3,4449925	-2,76499525	0,818663841
hsa-miR-671	217,43825	333,02525	161,101	766,00275	0,815155829
hsa-miR-302c*	0,079215775	3,2645385	0,97437125	5,1209	0,814730928
hsa-miR-583	19,72785	17,540625	4,7941175	118,1745	0,811718412
hsa-miR-379	136,649	135,3785	180,4645	178,256	0,799937345
hsa-miR-518c*	42,898025	54,4274	34,43165	102,98145	0,799415701
hsa-miR-150	57,820025	49,306475	59,12675	74,951125	0,798330251
hsa-miR-411	83,288575	74,951125	84,826425	98,748425	0,790028299
hsa-miR-337	0,402333	0,658312	7,2938625	6,48683	0,785409491
hsa-miR-214	1556,0025	1515,3025	1435,43	2103,935	0,783831298
hsa-miR-188	147,28525	225,40975	145,65625	303,449	0,78144848
hsa-miR-381	91,019425	182,62	391,50875	333,02525	0,775009937
hsa-miR-627	0,290113	0,290113	-0,4964505	3,58704425	0,773945326
hsa-miR-765	178,256	281,36425	171,60175	377,38975	0,762770345
hsa-miR-134	73,33025	113,026225	102,98145	115,04245	0,761036255

hsa-miR-554	-6,9004525	-6,50032	-4,761215	-5,2055	0,760604492
hcmv-miR-UL70-3p	118,1745	358,70575	123,88975	525,68575	0,755985139
hsv1-miR-H1	59,12675	94,44025	41,75465	163,51275	0,754503902
hsa-miR-493-5p	80,69435	82,0897	120,36725	113,026225	0,752520916
hsa-miR-155	77,5044	56,120725	98,748425	111,680925	0,749532749
hsa-miR-323	6,16729	12,4655025	23,5975	19,216925	0,736355223
hsa-miR-92b	11,6724275	10,684515	8,20944	21,3331	0,728199738
hsa-miR-758	21,3331	30,984325	49,306475	41,75465	0,723828664
hsa-miR-29a	3902,2925	5300,1175	5933,64	5569,6575	0,722282847
hsa-miR-492	-1,857286825	-1,989990575	-2,2382485	-0,84586275	0,721915474
ebv-miR-BART7	5,8786375	5,8786375	3,51354075	12,4100425	0,72010458
hsa-miR-569	-3,5514775	-4,0668875	-3,5514775	-2,91424125	0,718958155
hsa-miR-636	7,0183375	5,302175	5,51965	11,165905	0,718619219
hsa-miR-431	4,7941175	6,951705	7,812655	7,2938625	0,718236705
ebv-miR-BART10	0,20295775	-2,634822	0,93021125	3,51354075	0,715969663
hur_4	19931,725	36489,4	36489,4	36489,4	0,713746427
hsa-miR-192	67,18985	33,9901	32,9602	154,61975	0,711926929
hsa-miR-566	10,93852	10,48459	4,151955	28,1511	0,708686004
hsa-miR-493-3p	22,187625	38,393625	40,871	38,982425	0,707318822
hsa-miR-329	18,749625	11,165905	20,614575	27,06845	0,703547329
hsa-let-7c	3656,0025	3520,31	3902,2925	3902,2925	0,703097573
hsa-miR-518f*	27,662575	16,7414	35,550725	40,871	0,702926967

hsa-miR-487a	18,264425	17,85655	47,913725	40,069975	0,701149135
hsa-miR-215	49,306475	22,569975	24,359575	102,130475	0,68027168
hsa-miR-562	-2,84627875	-1,959438975	0,096331125	-0,876216	0,679872379
dmr_3	-1,82563725	-2,29772825	-0,96051125	-1,03155475	0,676843315
hsa-miR-369-3p	25,858725	11,24069	22,187625	41,49625	0,672277177
hsa-miR-199a	2212,5825	1916,78	1742,315	3093,1275	0,667465491
hsa-miR-299-3p	39,198575	80,69435	91,019425	80,69435	0,661949875
hsa-miR-655	-2,070234475	-3,8591825	-2,535021	-0,36620175	0,649900673
hsa-miR-18a*	6,384845	25,577875	24,797625	23,5975	0,649184791
hsa-miR-198	104,550425	207,02575	38,982425	320,477	0,645065451
hsa-miR-33	311,8095	275,69325	320,477	341,8625	0,643663859
hsa-miR-142-3p	989,3995	525,68575	1017,91525	1359,8175	0,636014621
hcmv-miR-UL148D	-0,26406775	-2,5042925	1,66635375	1,95517	0,635722978
hsa-miR-770-5p	11,165905	8,6864225	10,48459	13,2999275	0,628820681
ebv-miR-BART3-5p	0,93021125	0,002613425	1,554588	1,74577725	0,625076494
hsa-miR-382	43,480475	59,12675	73,33025	62,594975	0,620232165
hcmv-miR-US25-1	0,52499175	-1,26035375	-0,876216	2,73201775	0,619959112
hsa-miR-622	33,150475	50,91215	20,351175	69,633075	0,619573811
hsa-miR-410	32,9602	69,633075	57,297725	63,556125	0,618765552
hsa-miR-409-3p	74,951125	122,1165	143,02625	122,1165	0,613096281
hsa-miR-520d*	1,2703425	1,8244105	6,951705	4,57393	0,60849319
hsa-miR-219	3,51354075	20,08665	13,18091	16,98625	0,595918053

hsa-miR-29c	2001,235	4354,6575	5569,6575	4354,6575	0,594646672
hsa-miR-448	-3,4449925	-2,685818	-4,41558	-1,45980675	0,590607284
hsa-miR-29b	2747,2225	3257,2475	4354,6575	3656,0025	0,588899609
hsa-miR-380-3p	1,018044	2,96037475	12,7784325	7,4665925	0,582484644
hsa-miR-565	542,94	391,50875	1668,1225	1188,445	0,581739428
hsa-miR-575	1489,67	3902,2925	252,82475	5300,1175	0,580473466
hsa-miR-432	40,871	67,18985	78,91415	65,608575	0,573268091
hsa-miR-616	-3,9281675	-2,5913085	-3,0629125	-2,8910835	0,570826853
ebv-miR-BART5	-3,78544	-0,759821775	-1,959438975	-1,43292775	0,569385885
hsa-miR-342	182,62	171,60175	225,40975	207,02575	0,563821603
hsa-miR-580	-3,6891675	-2,18566325	-2,959125	-2,5042925	0,5625928
hsa-miR-99a	2340,395	2103,935	2164,6175	2543,055	0,554985177
hsa-miR-100	1435,43	1556,0025	1638,6575	1556,0025	0,553335877
hsa-miR-9	14,7314	7,2938625	14,7314	18,749625	0,551780799
NC2_00079215	-15,673275	-12,13235	-15,673275	-12,13235	0,549442256
hsa-miR-194	87,5603	53,051325	48,590525	125,81925	0,536371863
hsa-miR-433	4,3477725	5,3476175	3,658205	5,8786375	0,523960991
dmr_285	-4,5200225	-4,6504575	-4,9091875	-4,141875	0,516327536
hsa-miR-644	-2,60686875	-4,7940375	-2,51846675	-1,6396905	0,510654529
hsa-miR-659	32,62495	31,490075	12,9385725	53,051325	0,504160883
hsa-miR-184	12,4655025	1,554588	9,69186	17,347775	0,501639328
hsa-miR-519e	0,096331125	0,142066	5,302175	2,44084675	0,497133544

hsa-miR-455	26,81685	19,216925	16,335675	35,3744	0,494978011
hsa-miR-25	483,805	542,94	940,17775	688,62325	0,493820064
hsa-miR-524	-2,2382485	-2,611641	0,732154	-0,90457725	0,491281016
ebv-miR-BART20-5p	-1,653644	-3,762995	-2,7018075	-0,608115375	0,490270918
kshv-miR-K12-3	129,66925	163,51275	136,649	156,08375	0,487803679
hsa-miR-518f	-0,79700465	0,69033175	10,1553	3,9967625	0,483055388
ebv-miR-BART12	2,642945	14,666175	22,569975	13,18091	0,482885751
ebv-miR-BART11-5p	-2,092958875	-2,66502775	-0,30242775	-1,286153	0,478464532
hsa-miR-490	2,4977941	0,402333	0,260437	4,151955	0,475135673
NC1_00000215	7,57847	2,26147825	12,4655025	10,48459	0,471889567
hsa-miR-639	-0,19996325	-1,857286825	2,26147825	1,018044	0,469991133
hsa-miR-619	-2,51846675	-1,82563725	-1,07047125	-1,8367465	0,460410688
hsa-miR-523	-0,36620175	-0,19996325	5,061665	1,8244105	0,455693365
hsa-miR-556	-3,6127875	-2,79932125	-3,3010225	-3,0629125	0,448839837
NC2_00106057	-2,29772825	-9,2305225	0,079215775	0,079215775	0,444116166
hsa-miR-601	44,2164	108,620575	21,3331	108,620575	0,436023119
hcmv-miR-US4	60,934125	65,608575	38,393625	82,0897	0,431481313
hsa-miR-148a	903,6225	753,59975	736,3125	1003,56025	0,430253288
hsa-miR-630	235,6845	736,3125	57,820025	727,7915	0,42828982
hsa-miR-197	44,908175	57,297725	68,17495	55,510275	0,427541376
ebv-miR-BART14-5p	-3,52822	-2,87860975	-3,01182	-3,123635	0,426982239
ebv-miR-BART15	-1,13565	-1,653644	-2,5913085	-0,152126175	0,425200935



hsa-miR-498	25,577875	33,150475	56,120725	37,469025	0,42307387
hsa-miR-10b	3093,1275	2543,055	2865,87	3257,2475	0,413757111
hsa-miR-564	104,978575	115,04245	67,18985	139,44825	0,410850617