

1 **Supplementary Material**

2

3 **Supplementary Table S1.** Affymetrix gene array data showed that genes were  
 4 differentially expressed more than 2-fold ( $p < 0.05$ ) by miR-183 in HTM cells

Probe Set ID	Fold change ([183] vs [con])	p-value	Unigene (Avadis)	Gene Symbol	Microcosm	TargetScan	PicTar-Vert
209459_s_at	-3.781179	3.77E-03	Hs.336768	ABAT			
209460_at	-2.770565	5.78E-03	Hs.336768	ABAT			
200974_at	-2.013809	1.27E-02	Hs.500483	ACTA2			
202274_at	-3.13484	1.76E-04	Hs.516105	ACTG2			
205083_at	2.048626	3.11E-02	Hs.406238	AOX1			
206632_s_at	-3.073335	0.0085069	Hs.226307	APOBEC3B			
219918_s_at	-3.366546	0.0014902	Hs.121028	ASPM			
204092_s_at	-2.7691	0.0059318	Hs.250822	AURKA			
208079_s_at	-2.458599	2.13E-02	Hs.250822	AURKA			
209464_at	-2.395002	1.91E-02	Hs.442658	AURKB			
202094_at	-2.662949	0.025427552	Hs.514527	BIRC5			
202095_s_at	-3.533895	0.002646	Hs.514527	BIRC5			
210334_x_at	-2.090363	1.42E-03	Hs.514527	BIRC5			
209642_at	-3.200778	0.002552	Hs.469649	BUB1			
215509_s_at	-2.282037	0.0014631	Hs.469649	BUB1			
203755_at	-3.458603	5.40E-04	Hs.631699	BUB1B			
219806_s_at	-2.134782	0.009711	Hs.438064	C11orf75		T	
217640_x_at	-2.002571	0.032181	Hs.134726	C18orf24			
203418_at	-2.654844	0.001810	Hs.58974	CCNA2			
213226_at	-2.451741	0.0124573	Hs.58974	CCNA2			
214710_s_at	-2.920187	1.00E-04	Hs.23960	CCNB1	T		
202705_at	-2.868263	2.68E-04	Hs.194698	CCNB2			
203213_at	-3.454882	0.0049068	Hs.334562	CDC2			
203214_x_at	-2.877687	0.0037367	Hs.334562	CDC2			
210559_s_at	-3.126771	1.87E-03	Hs.334562	CDC2			
202870_s_at	-3.651807	0.0044540	Hs.524947	CDC20			
204126_s_at	-2.098042	6.67E-03	Hs.474217	CDC45L			
203967_at	-2.686684	0.018128	Hs.405958	CDC6			
221436_s_at	-2.08565	0.003739	Hs.524216	CDCA3			
221520_s_at	-2.048844	0.033373	Hs.709512	CDCA8			
206280_at	2.727546	0.0016561	Hs.317632	CDH18			
209714_s_at	-2.039934	0.0115109	Hs.84113	CDKN3	T		
204962_s_at	-2.668801	7.60E-03	Hs.1594	CENPA			
205046_at	-2.588846	0.0021577	Hs.75573	CENPE			

207828_s_at	-2.763046	1.83E-04	Hs.497741	CENPF			
209172_s_at	-2.251038	5.38E-04	Hs.497741	CENPF			
214804_at	-2.128053	0.0399844	Hs.318398	CENPI			
218542_at	-4.035945	9.64E-04	Hs.14559	CEP55			
209395_at	2.442728	2.58E-02	Hs.382202	CHI3L1			
209396_s_at	2.479816	0.0204517	Hs.382202	CHI3L1			
206165_s_at	2.111558	0.0170939	Hs.241551	CLCA2			
208096_s_at	2.291132	1.79E-02	Hs.47629	COL21A1			
217844_at	-3.56614	1.74E-03	Hs.709352	CTDSP1		T	T
207850_at	-2.497697	9.05E-04	Hs.89690	CXCL3	T		
220295_x_at	-3.988362	0.00736872	Hs.445098	DEPDC1			
203764_at	-3.539283	0.0039895	Hs.77695	DLG7			
218585_s_at	-3.008428	6.37E-03	Hs.656473	DTL			
221563_at	-2.087521	1.66E-03	Hs.497822	DUSP10	T	T	T
201324_at	-2.46042	0.0165686	Hs.436298	EMP1			
201325_s_at	-2.344159	0.01580251	Hs.436298	EMP1			
217820_s_at	-2.050615	0.0040929	Hs.497893	ENAH		T	T
203619_s_at	2.032953	1.60E-02	Hs.567424	FAIM2			
221591_s_at	-2.541675	1.70E-04	Hs.592116	FAM64A			
213007_at	-2.186525	0.0112575	Hs.513126	FANCI			
204135_at	2.284528	4.21E-04	Hs.104672	FILIP1L			
40665_at	2.16411	0.0243379	Hs.445350	FMO3			
202580_x_at	-2.148938	1.48E-02	Hs.239	FOXM1			
221521_s_at	-2.142594	0.0145854	Hs.433180	GIN5			
207157_s_at	-5.367361	9.12E-05	Hs.645427	GNG5	T	T	T
204318_s_at	-2.337598	0.0179649	Hs.386189	GTSE1			
211555_s_at	2.030661	8.00E-03	Hs.77890	GUCY1B3			
203821_at	-2.415553	0.004702	Hs.799	HBEGF	T		
38037_at	-2.21448	4.08E-03	Hs.799	HBEGF	T		
202708_s_at	2.015879	0.0095692	Hs.2178	HIST2H2BE			
218726_at	-2.141276	8.07E-03	Hs.532968	HJURP			
206247_at	-2.573702	5.99E-03	Hs.549053	HLA-B /// HLA-C /// MICA /// MICB /// XXbac-BPG181B23.1			
208808_s_at	-2.029881	1.73E-03	Hs.434953	HMGB2			
207165_at	-3.773434	0.0081598	Hs.72550	HMMR			
209709_s_at	-2.775011	0.010087	Hs.72550	HMMR			
206638_at	2.595501	1.55E-02	Hs.421649	HTR2B			
210046_s_at	-2.37163	4.56E-02	Hs.596461	IDH2	T	T	T
206924_at	-3.593291	0.0386597	Hs.467304	IL11			
205207_at	-2.374293	1.09E-04	Hs.654458	IL6			
211945_s_at	-3.120483	6.53E-03	Hs.695946	ITGB1	T		T

210261_at	-2.527264	0.001450	Hs.497745	KCNK2		T	T
202503_s_at	-8.649406	6.61E-03	Hs.81892	KIAA0101	T	T	
204444_at	-2.799535	0.006685	Hs.8878	KIF11			
206364_at	-2.578604	1.00E-02	Hs.3104	KIF14			
219306_at	-2.332971	0.0074554	Hs.658939	KIF15			
222039_at	-2.209388	6.80E-04	Hs.135094	KIF18B			
209234_at	2.325738	1.29E-04	Hs.97858	KIF1B			
218755_at	-3.640581	0.012548	Hs.73625	KIF20A			
204709_s_at	-2.835731	0.001945	Hs.270845	KIF23			
209408_at	-2.802597	5.82E-03	Hs.69360	KIF2C			
218355_at	-2.029146	0.008081	Hs.648326	KIF4A			
212658_at	-2.237456	0.0085969	Hs.670094	LHFPL2		T	
215617_at	-3.177227	0.0014048	Hs.120323	LOC26010			
215446_s_at	-5.051629	3.63E-04	Hs.102267	LOX			
218509_at	-2.102305	0.0071931	Hs.6846	LPPR2		T	
64899_at	-2.26044	0.0149126	Hs.6846	LPPR2		T	
203362_s_at	-2.653586	1.41E-02	Hs.591697	MAD2L1			
220651_s_at	-2.222308	2.08E-04	Hs.198363	MCM10			
204825_at	-2.059052	1.34E-03	Hs.184339	MELK			
212472_at	-2.159203	0.003938	Hs.501928	MICAL2			
212473_s_at	-2.164712	2.99E-03	Hs.501928	MICAL2			
212022_s_at	-2.330813	7.15E-03	Hs.80976	MKI67			
218883_s_at	-3.207901	0.004904768	Hs.575032	MLF1IP			
203200_s_at	-2.561076	1.71E-04	Hs.481551	MTRR	T		
218662_s_at	-3.00333	0.010619282	Hs.567567	NCAPG			
218663_at	-3.01228	0.023352265	Hs.567567	NCAPG			
212949_at	-2.225673	0.013316464	Hs.308045	NCAPH			
204162_at	-2.845414	2.19E-03	Hs.414407	NDC80			
204641_at	-4.426011	6.92E-03	Hs.153704	NEK2			
211080_s_at	-2.266111	6.70E-03	Hs.153704	NEK2			
218039_at	-3.103316	3.31E-04	Hs.615092	NUSAP1			
219978_s_at	-3.097255	9.91E-03	Hs.615092	NUSAP1			
213599_at	-2.60224	1.67E-02	Hs.661645	OIP5			
219148_at	-4.040434	2.46E-03	Hs.104741	PBK			
212593_s_at	-2.03527	0.003140986	Hs.232543	PDCD4	T	T	T
220595_at	3.369064	0.002740485	Hs.380044	PDZRN4			
202240_at	-2.640049	4.66E-03	Hs.592049	PLK1	T		
218009_s_at	-2.999283	4.99E-04	Hs.567385	PRC1			
211373_s_at	-2.446932	2.25E-03	Hs.25363	PSEN2	T	T	T
208615_s_at	-2.365968	0.005901953	Hs.470477	PTP4A2	T		
208617_s_at	-2.302916	3.04E-03	Hs.470477	PTP4A2	T		

216988_s_at	-2.16383	7.24E-03	Hs.470477	PTP4A2	T		
203554_x_at	-2.346504	0.003011021	Hs.350966	PTTG1			
212262_at	-2.003401	1.50E-02	Hs.510324	QKI			
212636_at	-7.191993	1.11E-03	Hs.510324	QKI			
222077_s_at	-2.419047	2.89E-03	Hs.708122	RACGAP1			
204146_at	-2.444458	0.005715805	Hs.709525	RAD51AP1			
201485_s_at	-2.942472	0.002752056	Hs.79088	RCN2	T		T
201486_at	-2.743082	5.91E-03	Hs.79088	RCN2	T		T
201890_at	-3.959339	0.005207405	Hs.226390	RRM2			
209773_s_at	-3.914297	3.87E-04	Hs.226390	RRM2			
219493_at	-4.215069	0.003655329	Hs.123253	SHCBP1			
201801_s_at	-2.192817	7.95E-04	Hs.25450	SLC29A1			
221751_at	-2.091293	0.021025514	Hs.388400	SLC2A3P1			
203145_at	-2.31356	3.28E-03	Hs.514033	SPAG5			
209891_at	-3.473555	0.010915261	Hs.421956	SPC25	T		
209875_s_at	2.945269	0.007512122	Hs.313	SPP1			
205691_at	2.4837	0.021655962	Hs.435277	SYNGR3			
218308_at	-2.118303	1.63E-02	Hs.104019	TACC3	T		
201147_s_at	-2.507032	5.62E-04	Hs.701968	TIMP3			
201148_s_at	-2.049667	1.82E-02	Hs.701968	TIMP3			
201149_s_at	-2.337733	0.004216083	Hs.701968	TIMP3			
202338_at	-2.3778	1.50E-03	Hs.515122	TK1			
209753_s_at	-2.052007	0.038306687	Hs.11355	TMPO		T	
209754_s_at	-2.456091	2.17E-02	Hs.11355	TMPO		T	
204932_at	-2.755277	4.26E-02	Hs.81791	TNFRSF11B			
204933_s_at	-2.27351	0.016607618	Hs.81791	TNFRSF11B			
201291_s_at	-3.561296	0.005110923	Hs.156346	TOP2A			
201292_at	-3.551408	0.001097579	Hs.156346	TOP2A			
210052_s_at	-2.659428	3.50E-04	Hs.244580	TPX2			
204033_at	-2.318241	4.64E-04	Hs.436187	TRIP13			
204822_at	-3.64008	1.61E-02	Hs.169840	TTK			
202954_at	-2.617985	0.010857854	Hs.93002	UBE2C			
218050_at	-2.499335	0.006991552	Hs.643655	UFM1			
219478_at	-2.637833	7.52E-04	Hs.36688	WFDC1			
204026_s_at	-2.09278	1.25E-02	Hs.591363	ZWINT			
222288_at	2.104558	2.02E-03	Hs.657591				

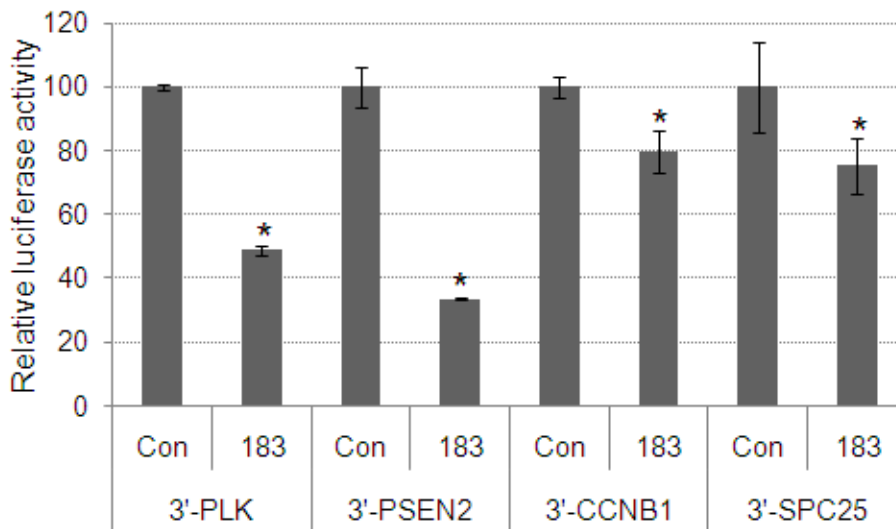
5  
6  
7  
8  
9  
10

11 **Supplementary Table S2.** Primer pairs used to amplify 3'UTRs of miR-183 target  
 12 genes

Gene Name	Gene Bank	Primer Pairs
<u>KIAA0101</u> 3'UTR	NM_014736.4	For: 5'- CGA CTC GAG ATT CCT GAA GAG GCA GGA AGC AGT Rev: 5'-TAT GCGGCC GCT CAC CTT GTT AGG CAG GAT GGT CT
<i>PLK</i> 3'UTR	NM_003916.3	For: 5'- TATCTCGAGAGTCTCTGGAGGAGTACGGCTG Rev: 5'- TATGCGGCCGCTGCATAAAGCCAAGGAAAGGACAG
<i>PSEN2</i> 3'UTR	NM_004050.3	For: 5'- AGACTCGAGTCCATCACGTTCCGGGCTCATCTTT Rev: 5'- TATGCGGCCGCTGGACAAAGCATTGGGAACACTCC
<i>CCNB1</i> 3'UTR	NM_139343.1	For: 5'- GAGCTCGAGAACAAGTATGCCACATCGAAGCA Rev: 5'- ACTGCGGCCGC ACTTAGAATTATGGCAGCAATCACAAAG
<i>SPC25</i> 3'UTR	NM_001166.3	For: 5'- GCGCTCGAGTCAAGAGAATGTAAGGAAGACCAACA Rev: 5'- TATGCGGCCGCTGCACACGTATGTTTATTTCGGCAC

13  
 14  
 15  
 16  
 17  
 18  
 19  
 20  
 21  
 22  
 23  
 24  
 25  
 26

**Supplementary Fig S1.** Confirmation of additional miR-183 targets. The 3'UTRs of PLK, PSEN2, CCNB1 and SPC25 containing miR-183 target site was cloned into the psiCheck2 dual-luciferase reporter vector using primers listed in supplementary table 2 and co-transfected with either miR-183 mimic (183M) or scramble control mimic (ConM) into HEK 293 cells. The luciferase activities of Renilla (with insert) and Firefly (endogenous) were analyzed 24 hours post-transfection. The ratio of Renilla/Firefly activities of ConM or 183M was recorded. The data represent percentage of ConM  $\pm$  SD. n=3; \*, p< 0.05 compared to ConM by Mann-Whitney U Test.



27  
 28