

SUPPLEMENTARY TABLES

Supplementary Table S1: The summary of all the target genes

Gene	Gene ID	Full Name	Summary
SFN	2810	stratifin	Diseases associated with SFN include limbal stem cell deficiency and bladder squamous cell carcinoma. Among its related pathways are Regulation of Wnt-mediated beta catenin signaling, P53 signaling pathway and Glucocorticoid receptor regulatory network.
P16	1029	also named CDKN2A (Cyclin-Dependent Kinase Inhibitor 2A)	P16 is a Protein Coding gene. Diseases associated with P16 include melanoma, cutaneous malignant and neural system tumor syndrome. Among its related pathways are Glioma and Pathways in cancer. GO annotations related to this gene include <i>protein kinase binding</i> and <i>p53 binding</i> .
hMLH1	4292	human MutL Homolog 1	hMLH1 is a Protein Coding gene. Diseases associated with hMLH1 include colorectal cancer, hereditary nonpolyposis and lynch syndrome. Among its related pathways are Pathways in cancer and Cell Cycle / Checkpoint Control. GO annotations related to this gene include <i>ATPase activity</i> and <i>MutSalpha complex binding</i> .
HOXD13	3239	Homeobox D13	HOXD13 is a Protein Coding gene. Diseases associated with HOXD13 include brachydactyly and syndactyly. GO annotations related to this gene include <i>sequence-specific DNA binding transcription factor activity</i> and <i>chromatin binding</i> .
PCDHGB7	56099	Protocadherin Gamma Subfamily B, 7	PCDHGB7 is a Protein Coding gene. It is a member of Cluster Protocadherins. GO annotations related to this gene include <i>calcium ion binding</i> and <i>neural system disorder</i> .
RASSF1a	11186	Ras Association (RalGDS/AF-6) Domain Family Member 1	RASSF1 is a Protein Coding gene. Diseases associated with RASSF1 include intracranial primitive neuroectodermal tumor and monophasic synovial sarcoma. Among its related pathways are Ras signaling pathway and Pathways in cancer. GO annotations related to this gene include <i>identical protein binding</i> and <i>protein N-terminus binding</i> .

Supplementary Table S2: Nucleotide sequences for methylight primers and probes of all the candidate genes and methylight reaction temperature

<i>Gene</i>	<i>Forward-Primer</i>	<i>Reverse-Primer</i>	<i>Production Size</i>	<i>Probe</i>	<i>Methylation Condition</i>	
SFN	TATGAAAGGCG TCGTGGAGA	GATACTCACGC ACCTCGAACC	179	AACGTGGTGGGCGGT	95°C, 3 min	1 cycle
					95°C, 10 secs 60°C, 30 secs	40 cycles
Globin	AGGTAGAAAAGGA GAATGAAGATAAA	CTTCCACTCTTT TCTCATTCTCTC	143	AGGAGGATAAGGAA GAGGGGAAATAGG	95°C, 3 min	1 cycle
					95°C, 10 secs 60°C, 30 secs	40 cycles
hMLH1	TGAGGYGGYG ATAGATTAGG	TCCCCTTACRAC CTTCTAACR	187	AACGTTGGG TTTATT CGG	95°C, 3 min	1 cycle
					95°C, 10 secs 60°C, 30 secs	40 cycles
HOXD13	AGGYGGGAGGT TTATAGAGGG	AACTCCCRAC RCRACTCATA	145	AGGCGCGTCGCGTT	95°C, 3 min	1 cycle
					95°C, 10 secs 60°C, 30 secs	40 cycles
RASSF1a	TGAAGGTTRGAGATT TTTTGTTTTATT	GCAAAACACC AyGyGAAAATA	158	AGTAAATCGGA TTAGG AGGG	95°C, 3 min	1 cycle
					95°C, 10 secs 60°C, 30 secs	40 cycles
PCDHGB7	CGTTATTCGATT TCGAGGAG	TTCACAAATAA ATCCCCGCTCT	161	TGGTTAAGGG TTCG GTGGT	95°C, 3 min	1 cycle
					95°C, 10 secs 60°C, 30 secs	40 cycles
P16	GGGGTRGGGT AGAGGAGGT	AATCGACCTCC GACCGTAACT	83	TGTTGTTGG AGGC GGG	95°C, 3 min	1 cycle
					95°C, 10 secs 60°C, 30 secs	40 cycles