

Supplementary Table 1:

1A: Primers used in the analysis of candidate gene promoter methylation using methylation specific PCR (MSP). (MF: methylated forward, MR: methylated reverse, UF: unmethylated forward, UR: unmethylated reverse, 1.5mM MgCl₂ added in all cases unless indicated by * where 2.5mM MgCl₂ was added)

Gene	Primer	Primer sequence	Product size	Annealing temperature °C
HSP47 1	MF	GCGTTTGAAAGGACGTGCTATTCGG	134bp	58 *
	MR	CTCGACGACCCGAACTACGAAAACG		
	UF	GGTGGTCAAAGGATGTGTGATTTTG	135bp	58 *
	UR	CTCAACAACCCAACTACAAAACAC		
HSP47 2	MF	GGAGGCGGTTAAGAGTAGAATCGTGT	109bp	58 *
	MR	CCACACACACGCAAACGTCGCCCG		
	UF	GGGAGTGGGTTAAGAGTAGAATTGTGT	110bp	58 *
	UR	CCACACACACACAAACATCTCCCAC		
EMP3	MF	GACGTAGAAGGAGAGCGAGC	252bp	58 *
	MR	CCTCGCTCGAACCTCCGTA		
	UF	GAAGAGATGTAGAAGGAGACTGAGT	255bp	58 *
	UR	CTTATCCCTCACTCAAACCTCCATA		
OPCML	MF	GAGGCGGCCAGGAGGGGAGAGG	135bp	56
	MR	ACGACCCTGGCTGCGCCGG		
	UF	GGTTGTCATGGCAGCAGCTCCATCC	135bp	56
	UR	GGGCGCGGCGGAGGTTAAGG		
CTNNG	MF	TAGTCTTCTTTTCGATCGCGTC	95bp	52 *
	MR	AACCGAATCGAAATCGAACCG		
	UF	TTTGAGTAGTTGTTGTTTGATTGTGTT	85bp	52 *
	UR	GAAACCAAATCAAATCAAACCAA		
SYK	MF	CGATTTGCGGGGTTTCGTTC	243bp	67
	MR	AAAACGAACGCAACGCGAAAC		
	UF	ATTTTGTGGGTTTTGTTTGGTG	140bp	67
	UR	ACTTCCTTAACACACCCAAAC		
TMS1	MF	TTGTAGCGGGGTGAGCGCG	212bp	65
	MR	AACGCTCATAAACAACAACGCG		
	UF	GGTTGTAGTGGGGTGAGTGGT	209bp	58*
	UR	CAAACATCCATAAACAACAACACA		
HOXA9	MF	GGTTAATGGGGGCGGGGCGTC	127bp	66
	MR	AACGCCTAACCCGCCGACCCG		
	UF	GTAGTTTTAATGGGGGGTGTGGTGT	139bp	66
	UR	CCATACCCAACACCTAACCCACCCAACCCA		

1B: Primers used in the analysis of candidate gene promoter methylation using direct bisulfite sequencing. (All PCR's performed were nested, as indicated by the primers given, annealing temperatures for both PCR's were the same unless otherwise stated. Touch-down PCR was used such that 3 or 4 annealing temperatures were used in conjunction, for a total of 34 cycles. F: forward primer, F2: internal forward primer, R: reverse primer, R2: internal reverse primer, 1.5mM MgCl₂ added in all cases unless indicated by * where 2.5mM MgCl₂ was added)

Gene	Primer	Primer sequence	Product size	Annealing temperature / °C
KERATIN19	F R1 R2	TAGTTTTGGAGATTAGGGTTGTTYGTTYGTGTT CAAAACRCRCACCTTATCCAAATAAAAAACCAA CATAATTAACCTTCTCRTTACCCRCCAACAA	392bp	60, 58, 56
SNN	F R1 R2	TYGTTGTAAGTAGGYGGGATTAAGGTAGTT ACTCACCATAACRCRACAACRACCCRA CACTCRAAACRCAAAAACCCRCRCTA	285bp	65, 63, 61
RASD1	F1 F2 R	TTTTGAGGATTGTAATATAYGGTTYGYGTAAGTAT TAGGAATGGGGTTTTGTTYGAAGTYG AATTCTCCCAAATCTAAACACAAACCRCTTA	357bp	61, 59, 57
ARPC4	F F2 R1 R2	TTAGTTTAGTGTGGTATAGAAGTTGGAT GTTYGTTTTAGAGTTTTYGTGTTTTAGGGATAT AACRAACCCTTCRTTCTTCCRATTCTA ACRAAACTAACTACAACRCAAAAATCTCAA	358bp	62, 60, 58
PTK2B	F F2 R	YGGTTTTGTATATTGGGTAGGTGGGYGATATTTG GTAGAAGTTGTGGTYGTAGYGTAGAGTGAT AATAACTCRAAAACCCTACTACRCCRCCTA	460bp	64, 62, 60
TFAP4	F R1 R2	GTAAYGTTTGTTAATTTGTTAGTTGATGGATT AATCAAAAAACAACRCCRAACRAAAATACAA AACRAAAAACAACTAATAAAAACTCAACACTC	300bp	60, 58, 56
ZFP36L2	F F2 R	TTYGYGTTTAGTATAAAATYGAAGGTGGGAGT GTAGGGAAAGATAYGTTTAGGGTTGTAGAATTT CRAAACCRACRACAACCTCRCRAACTACTAA	413bp	62, 60, 58
ARGHDIA	F1 F2 R	GGGYGTGTAAGGGGTTTTTTTAGTTTTAT TATTTTTYGAAGTTYGGGATTAGGTGATTAGGTT CCTACCTATCACTTCRAAATCACRAA	425bp	62, 60, 58
SEL1L	F R1 R2	TATTTTGGGAATTGTAGTTTTYGGATGAGT CCAAAAACRAATAACAACCCAATACRAAATATA AACRAAACTCTAAACCTTCAACCCRAA	512bp	61, 59, 57

LTBP3	F R1 R2	GTGTTTTGGTTYGGGTTAGYGTTTTATG AAACCCRACRAAAAACRCRAAAATACAAACTAA AAACCCAAACCAAACCCRAACTCAA	262bp	63, 61, 59
SMTH	F R1 R2	TAGTTTAGGGAYGGYGGTTAAGTTTAAATAT AACCRCTCCCCTAAATTCTACRAAAAATA TCRATTAATACCTCCCCTCTCRTA	355bp	61, 59, 57
ST3GAL2	F1 F2 R	GTGTTTTGTTTTAGTYGTTGGAGTTYGGT GTAYGGYGGATTTTTGAGTTTTAGYGAAAT TAACTAATCCCRCCCTTACCTAACCC	329bp	60, 65, 56, 54
RELA	F R1 R2	GGTYGGGATTYGGGAGTTAGTYGAGTTAT CCTACRCAACRCCCRCTCRACRCAA CACAACRCRACRACCCRCRATA	367bp	66, 64, 62
CDH5	F R1 R2	TTTTYGYGTTTTGGGGTTYGGGGTTT AACRCTCCTCCCACRCRCCCCRCAA AAATAACRACRACAACRCCAAAAA	379bp	¹ 67,65, 63, 60 ² 62,59, 55, 53
TRIM3	F1 F2 R	TTTTGTYGTTTAGAGATYGTGTTGAGGTAT GGAGTATTTAAGGAAGTYGGAAAGGGTGT ATAACTCCTTATTTTTTTCCACCCACRCC	326bp	62, 60, 58
AKAP13	F R1 R2	TTTTGTYGTYGAGTAGTAGYGGYGGTTAATT CTAAAACRACRACRACCRAAACRAACAATAA TCRACAAAACACAAACRCTTCACCRRACTA	259bp	65, 63, 61
AK1	F R1 R2	GGTTTTGTATTTGGAGTGTATTTGAGTAT ACACRAATCACAACCACRAATACACAA AATACRAATAAACRCCRAACCAATACRTA	345bp	61, 59, 57
UCP2	F1 F2 R	GTAAGAGGTGGTTGATTGGATAAGAT GAGTGGAGAAAGTTATGGAGAGAATT ATCAATCCCAAACRCRCRCAACTAA	208bp	59, 57, 55
NUP62	F R1 R2	TTGGAGTGTTTAGGTTTAGTTGTAYGYG CCATAACTCTATAACCTCRACCCCTTTA CCRCTCTCCTTACTACAACCATAAAATA	267bp	62, 60, 58
AIP	F1 F2 R	GTGTTATAYGGTYGTAGTTTTAAT TAATTTAATGATAATTGTTAGGGAYGTT ATAAACACRAACCTTAATCCCATCTA	424bp	58, 56, 54
SPTLC2	F R1 R2	GATTTGGATGYGGTTTTAATTAGTAGGTGTTAGGTT TCCRAACTCCRACRCATCTTCCTAA AACCTCTCCRAAAAAACCRATCTCRA	240bp	57, 55, 53
CST6	F R1 R2	TTYGTGAATYGTTTTGTATTGGTATTTGTTGT ATACTATTACTACCCATATTATAACTAACACRA AAAACAAAATACRACCAAACCAAACCCAA	359bp	62, 60, 58, 56