

**Supplemental Table 1: Primer sets and conditions for PCR.**

Primer set <sup>1</sup>	Forward (5'-3')	Reverse (5'-3')	Annealing Temp (degC)	Expected band size (bp)
<b>HOXD13-BGS</b>	AGTGGGTGGGTTTAGTTAGGTTG	CTCTAACCCCTCTCCCTCTATAA	55	245
<b>HOXD13-QRT</b>	CGTGGATGCCTTCATTTCTTGAGC	AGATGACCACAATCCCAGACCCAT	60	134
<b>HOXD13-CNV</b>	CCTCAGCTAGGTGCTCCG	TTGCCACCATTGGCAGG	62	424
<b>DLC1-BGS</b>	GTTTTTAGTTAGGATATG	ACTTCTTTCTACACTCAAAC	55	292
<b>DLC1-QRT</b>	AGTGTATGCGTACCTGTGTGCGTT	TGTGCCAGACTGAATCCACCTT	60	193
<b>DLC1-CNV</b>	CGTCACCACACTGCAAATAG	GACGTGTTTGTTAAGGCATTC	62	369
<b>WNT5A-BGS</b>	CCA CAT TTG GGG TTG GAA AGC CCT AAT TAC	AAAAA CTC AAT TAA CTT CCA ACA AAA	55	474
<b>WNT5A-QRT</b>	GATCGTTAGCAGCATCAGTCCACA	CTGTGCCTTCGTGCCTATTTGCAT	60	114
<b>WNT5A-CNV</b>	GCAATAAACATCTGCTCCTTTC	GCATTAATATTGCCGCATC	60	269
<b>TMEM16A-BGS</b>	TTT TTC TTC CTG TGT TTA AAT TTC TA	CAAATA TTA ATAATA TAAAC	55	468
<b>TMEM16A-QRT</b>	TTAAGCAGGAAACAGCACCCCTTG	TCTGTGAAATGCTTCCGAGGTCA	60	170
<b>TMEM16A-CNV</b>	ATGTGAGCGCCTCCAAAG	AGAACGCCTCCAGGCTC	62	158
<b>SFN-BGS</b>	TTGGGTTTGGTTATTTAGTTAAAAGG	ACATCTCCTTCTACTAATATCCAT	55	578
<b>SFN-QRT</b>	TGC TGC CTC TGA TCG TAG GAA TTG	TTC CCT CAA TCT CGG TCT TGC ACT	60	103
<b>SFN-CNV</b>	GCC TAT AAG AAC GTG GTG GG	AAT GAT GCG CTT CTT GTC G	62	294
<b>EGFR-BGS</b>	GATCGGGTTTAGAGGGGTAGTGTGGAAA	ATCAACTAAACRAAATCAAAAAACC	55	511
<b>EGFR-QRT</b>	GTGACCGTTTGGGAGTTGATGA	GGCTGAGGGAGGCGTTCTC	60	103
<b>EGFR-CNV</b>	CCTGGACCTTGAGGGATTG	CTTCAAGTGAATTCTGCC	62	313
<b>HBB (B-GLOBIN)-CNV</b>	GAGGGTTTGAAGTCCAACCTCTAA	CAGGGTGAGGTCTAAGTGATGACA	62	57
<b>GAPDH-QRT</b>	CATGTTTCGTATGGGTGTAACCA	ATGGCATGGACTGTGGTCATGAGT	60	155

**BGS:** primers for Bisulfite genomic sequencing

**QRT:** primers used for quantitative real time PCR for mRNA abundance

**CNV:** primers used for quantitative real time PCR for copy number analysis