

**Supplementary Table 9. Primer sets used for Sanger sequencing**

GENE	REF	ALT	SAMPLE	X20	FASTA	PRIMER
<i>KCNB2</i> -1	C	A	G05	CTTAGAAGAAA <b>C</b> CCCCTCCCAG	GCCTCTCACTTGCAGATGAAGTTCCCAACCGACCTCCCAGGGACAGAAGAG	LEFT PRIMER ; CGCAGCACATCAGTACCATC 59.07 RIGHT PRIMER ; AAGTCTTCGTCGTCACCAGT 58.97 (199bp)
<i>KCNB2</i> -1	C	A	G18		CCCCGTTTCTAACTCTATCCAGAGAGAAAGGACCTGCTGCCAGGGATGGCA	
<i>KCNB2</i> -2	C	T	G14	TCATGCGCATCCTCAGGATCCTGAAACTC	AGGATTTGCTGACTTGGACTTTTCTCTTTTCCAGATCCTGGCCATCGTGTCTA	LEFT PRIMER ; TGATTTGCTGGCCATCTTGC 59.47 RIGHT PRIMER ; GTGAAACCCAGAGACTGCAG 58.48 (174bp)
<i>KCNB2</i> -2	G	T	G16		TCCACCATTGCTTTGTCTCTCAATACGCTGCCGGAGCTGCAGGAAACGGACG	
<i>JAK3</i> -1	A	G	G03	GCTGA <b>C</b> CCCC	GAAACAGACCAGAGAGGGTGGGTCACCTTGCCCAAGGTCACACAGCAAGTTA	LEFT PRIMER ; GCTATCCTTGACCTGCCAGT 59.46 RIGHT PRIMER ; GTTGTTAACCTGCAGACCCC 58.76 (197bp)
<i>JAK3</i> -1	A	G	G13	GGGGT <b>C</b> CAGC	AAGGTACAAGCTGGGCTCT	
<i>JAK3</i> -2	C	T	G04	CTCC <b>C</b> GAGC	GTGAGGCCCTCCGCAGAATCTGTCCCTCGCCCCACCATAATGTCACCTCCTAC	LEFT PRIMER ; CAATGTCCTGCCCCGGAAG 58.23 RIGHT PRIMER ; GGTGAGCACTGAGGGAATGA 59.38 (197bp)
<i>JAK3</i> -2	C	T	G04	GCTC <b>G</b> GGAG	GGCAGGAGACCAGGGTGCAAGTGTGGAAGGGAAGTTCATTGGAAGCTTGAG	
<i>JAK3</i> -3	G	A	G09	GCTC <b>G</b> CTGC	CAAGGGCCTTGAATGCCAG	LEFT PRIMER ; ACCTTCCCAGTCATTCCTG 59.00 RIGHT PRIMER ; GGTGGGAAGAACAGCCTAGA 58.72 (16bp)
<i>JAK3</i> -3	G	A	G16	GCAG <b>C</b> GAGC	GGAGTTCGAGACCAGCCTGACCAACATGGAGAAACCCCGTCTCTACTAAAA ATACAAAATTAGCCGGGCG	
<i>JAK1</i> -1	G	A	G16	GAAG <b>G</b> CAGA	CTCTGACTGTTATCTCAGTGAGTGCTTATGCCTGTGAGGTAGGTACACCATT	LEFT PRIMER ; AGCCTCAGACTGATGGATGT 58.12
<i>JAK1</i> -2	C	T	G03	CTCAC <b>G</b> GGC	GTTACCATCTCCATTCACTGCTGAGGATCTTGAGGCATAAGAGGTCAAGTAA	RIGHT PRIMER ; ATTACCCAGGACAGAGTGC 59.09 (217bp)
<i>JAK1</i> -3	C	A	G10	GTAG <b>C</b> TCAGTGTT <b>T</b> GGCA	CACGAAGCCCAATGAGATACGIGCCACTATTAGCCACATTCAGTGAATGAG	LEFT PRIMER ; TCACACAGATGATGGCAGC 58.54
<i>JAK1</i> -3	T	G	G16		GGAGCTGGAGCCAAGGGGCACCTGTGATGTGCCTAAGTCACACAGATGATT	RIGHT PRIMER ; CTGAGCTTGATGAATGGGCC 58.97 (240bp)
<i>JAK1</i> -4	C	A	G16	GAA <b>A</b> CTCAG	TGTACTCTGAGGCCGAGTAGTGTCCACTGAAGTGGACTGTCGTAAGGGGAT	LEFT PRIMER ; CACAGACCAGGTTCCAGACA 59.24
					GAAGGAGAGGACCGTGCCACAGACCAGGTTCCAGACATGGCTATTTTTATG	RIGHT PRIMER ; ACTCTGGTTTCTGGTGGGAC 59.23 (215bp)
					CCTACAGATATCATGGTGGAAGAGTTTGTGGAAGGGGGTCTCTGGATCTCT	LEFT PRIMER ; TGCATGTCTAGTGAGCAGTGA 59.10
					CTTGTGCAGATATATATTATTCAGTGTGTAGATTATTTCAAGCATGAAATTC	RIGHT PRIMER ; CCAAGGAAGAGAAAGCCAGC 58.83 (205bp)
					GTGTCTTCTCTGGAAAATCCCGACTTGAGTACTGTTACAAAGTCAAGACGAT	