

Supplemental Table 1. Primer sequences for *KCNQ1* (NM_000218.2)

Exon	Forward primer	Reverse primer	PCR product size (bp)
1-1	AGCGGGATAGATGACACGAG	CAAGGTCGGAGGCAACTG	661
1-2	AGGCCCTCCTCGTTATGG	CTTCCTCCCTCCTCTGCTC	524
2	AATGGATGACTGGGTTTTCG	TATCAGGGCAGGACCAATGT	363
3	GCTGTTCTCAGGGTGTCTT	GAGTGCAGAGGCTGCTGAG	426
4	ACGAGAGCAGGGTGTATGCT	CTGAGGCATCTTGGGTTGAG	372
5	CCTGTCGGGATGGACATATAC	CTGTCCTAGTGTGGGCTGCT	330
6	GCCACTTACCGGAGTTGTGA	GCACAGGTTTGTGGACAGAG	465
7	GCTCTGTTCCCTGGTCTTTC	CGTAAGTGGGCTGCTCACA	367
8	TCCAGCACTGACCATACCTG	AAGCAGAGTATGCCCCACAG	346
9	CCATGTCAAGCTGTGACTC	GGAACCTAGCATCGGGTGA	444
10	CTGCCCTGTCTCTGTGTGAA	GAAGCTCCACCCTCTGTCTG	453
11	CACTTTGGGGCCATCTTAAA	CTCTCCTCTCTTGCCTGGTG	479
12	CATCCCATGGAGTTGAACACT	CTCCACTATGGGAGGAGAG	309
13	AACCAGGCTTATGCCATCAC	GGTGGTTGAGAGGCAAGAAC	362
14	CTTCCGAGATCCCTGCTC	CCCTGGCTTTCATTTTCATGT	396
15	ACCGTACCACCCTGGTATT	CTTCACGTTACACGCAGAC	326
16	ATTCCTTGCACACACAGG	GCTCTTCTCTGCGCCTTT	543

All primer sequences are 5' to 3' direction. Annealing temperature for all primer pairs is 60°C.

Supplemental Table 2. Primer sequences for *KCNH2* (NM_000238.3)

Exon	Forward primer	Reverse primer	PCR product size (bp)
1	CCCGCAGTCCAGTCTTGG	ACACACTCCGATCCCAAAAG	478
2	GAGTGGAGAATGTGGGAAG	GTCACACCCACAGAAACC	459
3	CAGATTGAGGGAGCCATAA	CACTTCCACCTCCAAGG	500
4-1	GTTCCCTCCTTCCCTTACC	CATGGCCTCGATGTCGTC	507
4-2	GGTGGACGTGGACCTGAC	AGCGCAACAAGCCACTTAAT	499
5	CCCTGGTCTCTGAGCTGAC	CTCTGGATCACAGCCACTC	420
6	CTCCTCCTCATTCTGCTTGG	CCTTGCCACCATGTCTCTCT	682
7	TGTGGGCTTACCTCTTAGG	CAGCCTCAGTTTCTCCAAC	605
8	CTGGAGCGCAGATGTACAAG	AAGGGCTTCCATTTCTCAT	506
9	AGGCCTGGAGGTTGAGATTT	AGCCCCAGTGACTGCATATT	452
10	AGCTGAGGGGACATGCTCT	TGGGACTTTTGTAGGCTGCT	448
11	TTCCCTGTCTGTCAAATGG	ATCTGGACAGCTGGGGTGT	463
12	TTCCCTGCCAGTCCCTCTCT	AGGGAGCTCCTGGTACTGG	544
13	AGCCCTGATGGAGGACT	CTCCGCGTAGAGGTGTG	494
14	GGCTGCCACACCTTAGC	CTCCTGAAGCAGCCTTCTCT	480
15	TGTCCCTCCAGTCTCTCT	CAGGAGAAGATGGTCCCAAG	457

All primer sequences are 5' to 3' direction. Annealing temperature for all primer pairs is 60°C.

Supplemental Table 3. Primer sequences for SCN5A (NM_000335.4)

Exon	Forward primer	Reverse primer	PCR product size (bp)
1	AGCCTCTCTGCAAATGGTGT	CACCCTAAATAGAGCCCCATA	548
2	GGGCAAGGCAGTGAGTCTAC	TAGGACCAGCAGGGAATCAG	431
3	GTCACAGCCCAGTGTGTC	TTCCTCCCTAGAAGGCACAA	452
4	GGACACATGGCAGTTACACG	AGGGAGGAAGCCAGAAAGAG	475
5	TTGTGGCTCTCGAACTTT	GAGCCCTGGGAAAGGTATTTC	421
6	CCAGGAGAAGCCTCCCTTAT	AGGCCCTAAGTCTGCTACCC	539
7	ACTGGCAGCAGGATGTCTTC	TGGGGTCAGGGCATAAATAG	379
8	ACAGCACGAACAAGTCACG	ATCCCTTCTCCCTCAGAAGC	475
9	GCAGGTCAGTACATGTCCCTCT	CAGCAGGCACTGCACCAT	544
10	TGCTCTATTTTGGGGTAGG	GAAACAGGAAGCGCAGAGAT	436
11	GCCCTCAATGCTCTGAGAAG	TGGCACTGGTGATCAGTTTG	545
12	CCAGTGTCCCATCAAGACCT	CAGGCCAGATGTGGGAGTAT	519
13	TCCAGATTAAGGAGCCAGGA	CTGTGTGCAGGATCCCTTCT	528
14	CAGGCTGGAGAAGAGAGCTG	GGTACCAAGCAATGGCTGT	495
15	GCTTTCAGGCAGGAGCTAGA	CGGATGGGTAGATGGATTGA	550
16-1	GGTTAGGATGAGGGCTCAGG	TGGTCATCTGTCTGACTCG	549
16-2	CCCCTGATGAGGACAGAGAG	GCCTTCTACCCCTACCCACT	516
17	TTGCTTGGACCTACCAGGAG	TGTACCGTCTCTCCCTGTC	545
18	AAAAGTGGCTCTGTGCAGGT	CTGTTGGGCATACAGTGGTG	537
19	TCCATCCATCCTCCTCAAAG	GGGGTTGAGAGTTTGTGAGC	547
20	GGCTGAAGCAGGAGAATCAC	ACGTCCTCCTCCTCTCTGC	527
21	GACAGTCCACCCAGGACTA	GGTTCTCACAGCTGCCTAGC	487
22	CTCCCTTGTGTGGGATCT	CCTCTTCTGCCACATCAT	512
23	CCCACCCTAGTGCTAAACA	GCATTCCAGAGAGGCTGAAC	394
24	TGGCCACAGACTCACATAA	AGAAGAGGACCATCCCCAAC	426
25	TCAAGGTGAAAAGGGACAGG	GGGCTGAAAGACTGTGAAGC	415
26	GGCTTTAGCCTCCAGGACTT	GGTTGTACATGGCATTGAGC	537
27-1	AGCAGGCAGAGTCTAGCAT	AGAGTGGGGTCGCAGTAGG	549
27-2	ACATCGGGCTGCTGCTCT	GGCAGGTCCATGTTGATGA	547
27-3	CACCACCTACATCATCTCC	CTGCTGACGGAAGAGGAAGG	538
27-4	AGATGGACGCCCTGAAGAT	GCTGGTTTGTGACTGACTGC	535

All primer sequences are 5' to 3' direction. Annealing temperature for all primer pairs is 60°C.