

Table SI. Primers for Sanger sequencing.

Gene	Genomic coordinates ^a	Product length, bp	Forward primer, 5'→3'	Reverse primer, 5'→3'
<i>CNGA3</i>	chr2:99006074+99006417	344	ACAGTCTTGGAGCACAGTGC	TCTGATGGTCCTCTTGGGGA
<i>CNGA3</i>	chr2:99012434+99012834	401	CACAAACTACCCAGAAGTGAGGT	AGCCCACATTGCCACAA

^aBased on Genome Reference Consortium Human Build 37. *CNGA3*, cyclic nucleotide-gated channel subunit a 3.

Table SII. CDS sequence of the protein encoded by *CNGA3*.

Gene	CNGA3
NCBI mRNA RefSeq	NM_001298.3
Definition	Homo sapiens cyclic nucleotide gated channel subunit a 3 (CNGA3), transcript variant 1, mRNA
CDS coordinates	117-2,201
CDS sequence	<p>ATGGCCAAGATCAACACCCAATACTCCCACCCCTCCAGGACCCACCTCAAGGTAAAGACCTCAGACCGAGATCTCAATCGCGCTGAAAAT GGCCTCAGCAGAGCCCCTCGTCAAGTGAGGAGACATCGTCAGTGCTGCAGCCGGGGATCGCCATGGAGACCAGAGGACTGGCTGACTC CGGGCAGGGCTCCTTACCGGCCAGGGGATCGCCAGGCTGTCGCGCCTCATCTTCTTGCTGCGCAGGTGGGCTGCCAGGCATGTGCACCA CCAGGACCAGGGACCGGACTCTTTTCTGATCGTTTCCGTGGAGCCGAGCTTAAGGAGGTGTCCAGCCAAGAAAGCAATGCCAGGCAA ATGTGGGCAGCCAGGAGCCAGCAGACAGAGGGAGAAGCGCCTGGCCCCTGGCCAAATGCAACACTAACACCAGCAACAACACGGAGG AGGAGAAGAAGACGAAAAAGAAGGATGCGATCGTGGTGGACCCGTCCAGCAACCTGTACTACCGCTGGCTGACCGCCATCGCCCTGCCT GTCTTCTATAACTGGTATCTGCTTATTTGCAGGGCCTGTTTCGATGAGCTGCAGTCCGAGTACCTGATGCTGTGGCTGGTCTGGACTACTC GGCAGATGTCCTGTATGTCTTGGATGTGCTTGTACGAGCTCGGACAGGTTTTCTCGAGCAAGGCTTAATGGTCAGTGATACCAACAGGCTG TGGCAGCATTACAAGACGACCACGCAGTTCAAGCTGGATGTGTTGTCCCTGGTCCCCACCGACCTGGCTTACTTAAAGGTGGGCACAAAC TACCCAGAAGTGAGGTTCAACCGCCTACTGAAGTTTTCCCGGCTCTTTGAATCTTTGACCGCACAGAGACAAGGACCAACTACCCCAAT ATGTTCAAGGATTGGGAACTTGGTCTTGTACATTCTCATCATCCACTGGAATGCCTGCATCTACTTTGCCATTTCCAAGTTCATTGGTTTT GGGACAGACTCCTGGGTCTACCCAAACATCTCAATCCCAGAGCATGGGCGCCTCTCCAGGAAGTACATTTACAGTCTCTACTGGTCCACCT TGACCCTTACCACCATTGGTGAGACCCCAACCCCGTGAAGATGAGGAGTATCTCTTTGTGGTTCGTAGACTTCTTGGTGGGTGTTCTGAT TTTTGCCACCATTGTGGGCAATGTGGGCTCCATGATCTCGAATATGAATGCCTCACGGGCAGAGTCCAGGCCAAGATTGATTCCATCAAG CAGTACATGCAGTTCCGCAAGGTCACCAAGGACTTGGAGACGCGGGTTATCCGGTGGTTTTGACTACCTGTGGGCCAACAAAGAAGACGGT GGATGAGAAGGAGGTGCTCAAGAGCCTCCCAGACAAGCTGAAGGCTGAGATCGCCATCAACGTGCACCTGGACACGCTGAAGAAGGTT CGCATCTTCCAGGACTGTGAGGCAGGGCTGCTGGTGGAGCTGGTGTGAAGCTGCGACCCACTGTGTTTCCAGCCCTGGGGATTATATCTGC AAGAAGGGAGATATTGGGAAGGAGATGTACATCATCAACGAGGGCAAGCTGGCCGTGGTGGCTGATGATGGGGTCACCCAGTTCGTGGT CCTCAGCGATGGCAGCTACTTCCGGGAGATCAGCATTCTGAACATCAAGGGGAGCAAGTCGGGGAAACCGCAGGACGGCCAACATCCGCA GCATTGGTACTCAGACCTGTTCTGCCTCTCAAAGGACGATCTCATGGAGGCCCTCACCGAGTACCCGAAGCCAAGAAGGCCCTGGAG GAGAAAGGACGGCAGATCCTGATGAAAGACAACCTGATCGATGAGGAGCTGGCCAGGGCGGGCGCGGACCCCAAGGACCTTGAGGAGA AAGTGGAGCAGCTGGGGTCTCCCTGGACACCCTGCAGACCAGTTTTGCACGCCTCCTGGCTGAGTACAACGCCACCCAGATGAAGATG AAGCAGCTCTCAGCCAACCTGGAAGCCAGGTGAAGGGTGGTGGGACAAGCCCCTGGCTGATGGGGAAGTCCCGGGGATGCTACAA AAACAGAGGACAAACAACAGTGA</p>
CDS, coding sequence; CNGA3, cyclic nucleotide-gated channel subunit a 3; NCBI mRNA RefSeq, National Center for Biotechnology Information mRNA reference sequence.	

Table SIII. Restriction enzyme recognition site, 3xFLAG tag and Kozak sequences of the CNGA3 wild-type plasmid.

Plasmid	CNGA3 wild-type
Restriction enzyme recognition site, 5'→3'	<i>Hind</i> III, AAGCTT; <i>Bam</i> HI, GGATCC
Kozak, 5'→3'	GCCACCATGG
3xFLAG, 5'→3'	GACTACAAGGACCACGACGGTGAC TACAAGGACCACGACATCGACTACAAGGACGACGACGACAAG

CNGA3, cyclic nucleotide-gated channel subunit a 3.
