

GACGTCTGGCTCACCATGCTCAGCATGATCGTGGGTGCCACCTGCTACGCCATGTTTCATTGGCCACGCCA
CTGCCCTCATCCAGTCCCTGGACTCCTCCCGGCCAGTACCAGGAAAAGTACAAGCAGGTGGAGCAGTA
CATGTCCTTTACAAGCTCCCGCCGACACCCGGCAGCGCATCCACGACTACTACGAGCACCGCTACCAG
GGCAAGATGTTTCGACGAGGAGAGCATCCTGGGCGAGCTAAGCGAGCCCTGCGGGAGGAGATCATCACT
TTAACTGTGGAAGCTGGTGGCTCCATGCCACTGTTTGGCAATGCGGACCCCACTTCGTGACGTCCAT
GCTGACCAAGCTGCGTTTCGAGGTCTTCCAGCTGGGGACTACATCATCCGGGAAGGCACCATTGGCAAG
AAGATGTACTTTCATCCAGCATGGCGTGGTCAGCGTGCTACCAAGGGCAACAAGGAGACCAAGCTGGCCG
ACGGCTCCTACTTTGGAGAGATCTGCCTGCTGACCCGGGGCCGGCGCACAGCCAGCGTGAGGGCCGACAC
CTACTGCCGCTTACTCGCTGAGCGTGGACAACCTTCAATGAGGTGCTGGAGGAGTACCCCATGATGCGA
AGGGCCTTCGAGACCGTGGCGCTGGACCGCTGGACCGCATTGGCAAGAAGAACTCCATCCTCCTCCACA
AAGTCCAGCACGACCTCAACTCCGGCGTCTTAACTACCAGGAGAATGAGATCATCCAGCAGATTGTGCA
GCATGACCGGGAGATGGCCACTGCGCGCACCGCGTCCAGGCTGCTGCCTCTGCCACCCCAACCCCAAG
CCCGTCTCTGGACCCCGCTGATCCAGGCACCACTGCAGGCTGCCGCTGCCACCACTTCTGTGGCCATAG
CCCTCACCCACCACCTCGCTGCCTGCTGCCATCTTCCGCCCTCCCCAGGATCTGGGCTGGGCAACCT
CGGTGCCGGGAGACGCCAAGGCACCTGAAACGGCTGCAGTCCCTGATCCCTTCTGCGCTGGGCTCCGCC
TCGCCCGCCAGCAGCCCTGCCAGGTGGACACACCGTCTTCATCCTCCTTCCACATCCAACAGCTGGCTG
GATTCTCTGCCCCGCTGGACTGAGCCCACTCCTGCCCTCATCCAGTCTCCTCCCAACCCCGGGGCTG
TGGTCCCCCTCGGCTCCCACACCATCAGCTGGCGTAGCCGCCACCACCATAGCCGGGTTTGGCCACTTC
CACAAGGCGTGGGTGGCTCCCTGTCTCCTCCGACTCTCCCCTGCTCACCCCGTGCAGCCAGGCGCCC
GCTCCCCGAGGCTGCCAGCCATCTCCCGCGCCACCCGGGGCCCGGGGAGGCCTGGGACTCCCGGAGCA
CTTCTGCCACCCCAACCTCATCCAGATCCCCGTCATCTAGCCCCGGGAGCTGGGCCAGCCTCCCGGG
GAGTTGTCCCTAGGTCTGGCCACTGGCCACTGAGCACGCCAGAGACACCCCAACGGCAGCCTGAGCCGC
CGTCCCTTGTGGCAGGGCCTCTGGGGGGCTTCCCCTGTAGGCTTACTCCCCGAGGAGGTCTCAGCCC
CCCTGGCCACAGCCAGCCCGCCCAAGAACCTTCCCGAGTGCCCCGCCCCGGGCTCTGGCTCCACGGA
TCCTTGCTCCTGCCACCTGCATCCAGCCCCCACCACCCAGGTCCCCAGCGCCGGGGCACACCCCGC
TCACCCCGCGCCCTCACCCAGGACCTCAAGCTCATCTCCGCTCTCAGCCAGCCCTGCCTCAGGACGG
GGCGCAGACTCTCCGAGAGCCTCCCCGACTCCTCAGGGGAGTCCATGGCTGCCTTCCCGCTTCCCC
AGGGCTGGGGTGGCAGCGGGGAGTGGGAGCAGCGGGGCTCGGTCCCCCTGGGAGGCCATGTTG
CCATCCCCGCGCAGCACGTCACTCTGCCTCGGAAGACATCCTCAGGTTCTTTGCCACCCCTCTGTCTTT
GTTTGGGCAAGAGCCACCTCTTCTGGGGGCCCCCTCTGACTGCTGGACCCAGAGGGAACCTGGGGCC
AGGCTGAGCCAGTGCCTCCAACTGCCATCCAATCTA

CTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG216770 representing NM_005477
 Red=Cloning site Green=Tags(s)

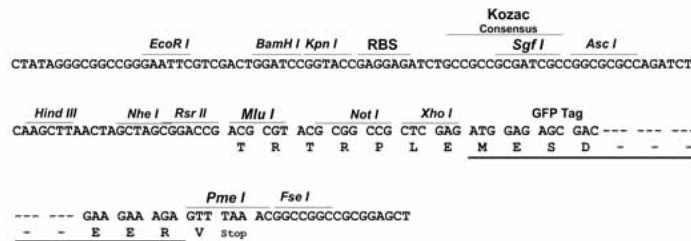
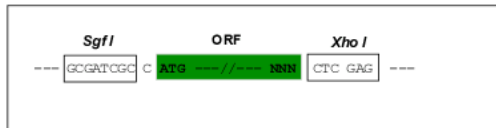
MDKLPPSMRKRL YSLPQQVQAKAWIMDEEEDAE EEEGAGGRQDPSRRSIRLRPLPSPSPSAAAGTESRSS
 ALGAADSEGPARGAGKSS TNGDCRRFRGSLASL GSRGGSGGTGSGSSHGLHDSAEERRLIAEGDASPG
 EDRTTPGLAAE PERPGASAQPAASPPPPQPPQ PASASCEQPSVDTAIKVEGAAAGDQILPEAEVRLGQ
 AGFMQRQFGAMLQPGVKNFSLRMFGSQKAVEREQERVKSAGFWI IHPYSDFRFYWDLTMLLLMVGNLIII
 PVGITFFKDENTTPWIVFNVSDFLIDLVLNFR TGI VVEDNTEIILD PQRIKMKYLKSWFMVDFISSI
 PVDYIFLIVETRIDS EYKTARALRIVRFTKILS LLRLLRLSRLIRYIHQWEEIFHMTYDLASAVVRIVN
 LIGMMLLLCHWDGCLQFLVPMLQDFPDDCWV S INNMVNNSWGKQYSYALFKAMSHMLCIGYGRQAPVGM
 DVWL TMLSMIVGATCYAMF IGHATALIQLSDSSRRQYQE KYKQVEQYMSFHKLPPDTRQR IHDYYEHRYQ
 GKMFD EESILGELSEPLREEI INFNCRKLVAS MPLFANADPNFVTSMLTKLRFEVFPQGDYI IREGTIGK
 KMYFIQHGVVSVLTKGNKETKLADGSYFGEICLL TRGRRTASVRADTYCRLYSLVDNFNEVLEEYPMMR
 RAFETVALDRLDRIGKKN SILLHKVQHDLNSGVFN YQENEIIQQIVQHDREMAHCAHRVQAAASATPTPT
 PVIWTPLIQAPLQAAAATTSVAIAL THHPRLPAAIFR PPPGSGLGNL GAGQTPRHLKRLQSLIPSALGSA
 SPASSPSQVDT PSSSSFHQQLAGFSAPAGL SPLLPSSSSPPPGACGSPSAPT PSAGVAATTIAGFGHF
 HKALGGSLSSSDSPLL TPLQPGARSPQAAQP SPAPPGARGLGLPEHFLPPPSSRSPSSSPQLGQPPG
 ELSLGLATGPLSTPETPPRQPEPPSLVAGASGGAS PVGF TPRGGLSPPGHSPGPRTFPSAPPRASGSHG
 SLLLPPASSPPPPQVQRRGTPPLTPGRLTQDLKLI SASQPALPDGAQTLRRASPHSSGESMAAFPLFP
 RAGGGSGSGSSGGLGPPGRPYGAIPGQHVTLP RKTSSGSLPPPLSLFGARATSSGGPPLTAGPQREPGA
 RPEPVRSKLPSNL

LE - GFP Tag - V

Restriction Sites: SgfI-XhoI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

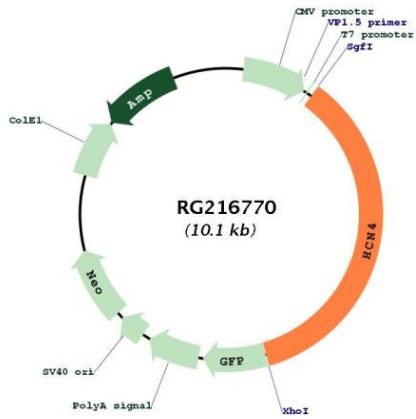


ACCN: NM_005477

ORF Size: 3609 bp

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_005477.3
RefSeq Size:	5065 bp
RefSeq ORF:	3612 bp
Locus ID:	10021
UniProt ID:	Q9Y3Q4
Cytogenetics:	15q24.1
Domains:	cNMP, ion_trans
Protein Families:	Druggable Genome, Ion Channels: Cyclic nucleotide gated, Transmembrane
Gene Summary:	This gene encodes a member of the hyperpolarization-activated cyclic nucleotide-gated potassium channels. The encoded protein shows slow kinetics of activation and inactivation, and is necessary for the cardiac pacemaking process. This channel may also mediate responses to sour stimuli. Mutations in this gene have been linked to sick sinus syndrome 2, also known as atrial fibrillation with bradyarrhythmia or familial sinus bradycardia. Two pseudogenes have been identified on chromosome 15. [provided by RefSeq, Oct 2008]

Product images:



Circular map for RG216770