

Product datasheet for RC220578

CNGB1 (NM_001297) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CNGB1 (NM_001297) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CNGB1
Synonyms:	CNCG2; CNCG3L; CNCG4; CNG4; CNGB1B; GAR1; GARP; GARP2; RCNC2; RCNCb; RCNCbeta; RP45
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC220578 representing NM_001297 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGATCGCC

ATGTTGGGCTGGGTCCAGAGGGTCTGCCTCAGCCCCAGGGACCCCTCGGAAGACCAAGATGCAGGAGG
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GACAGAGTCCGAGTCCATGCCCCCGAAGAGTCATTCAAGGAGGAGGAAGTGGCTGTGGCAGACCCAAGC
CCTCAGGAGACCAAGGAGGCTGCCCTTACTTCCACCATATCCCTCCGGGCCAGGGCGCTGAGATTTCTG
AAATGAATAGTCCCAGCCGAGGTTACTGACCTGGCTCATGAAGGCGTAGAGAAGTGATCCCGCAGCC
TGTTACAGCATCACGGAGGACCCGGCTCAGATCCTGGGCGATGGCAGCACTGGGACACAGGGTGCACA
GATGAACCCAATGAGGCCCTGAGGCCAAGACACTAGGCTGGGCTGCGGCTGCTTCTGTGGCTGGAGC
AGAATCTGAAAGAGTGTCTCCTCAGCCCCAAATCCTCTGAGGTCTGGAGAGATGAGCCTGCAGTTGC
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CCGCCACCGTCTCCTGCCAAATCAGACACCCTTATAGTCCCAAGCTCAGCCTCGGGGACACACAGGAAGA
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CCTGTGCGTGAAGATGCCGGAGAAAGGAGGAGAAGGCCGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220578 representing NM_001297
 Red=Cloning site Green=Tags(s)

MLGWVQRVLPQPPGTPRKTKMQEEEEVEPEPEMEAEVEPEPNPEEAETESMPPEESFKEEEVAVADPS
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 SAIINDRLQELVKLFKERTEKVKELIDPDVTSDEESPKPSPAKKAPADTKPAEAEVVEEHHYCDML
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 IYFLDITVFQTRLQFVRGGDIITDKKDMRNLYKSRRFKMDLLSLLPLDFLYLKVGNPLLRPRCLKYM
 AFFEFNSRLESILSKAYVYRVIRTTAYLLYSLHLNSCLYYWASAYQGLGSTHWVYDGVGNSYIRCYFAY
 KTLITIGGLPDPKTLFEIVFQLLNYFTGVFAFSVMIGQMRDVGAATAGQTYRSCMDSTVKYMNFKYIP
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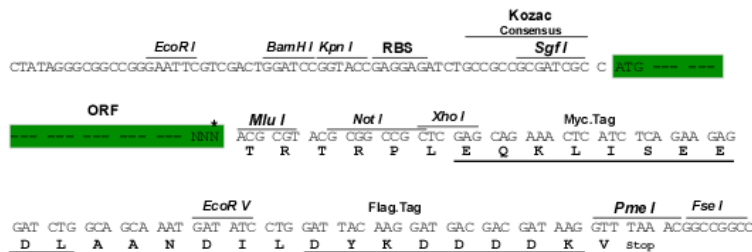
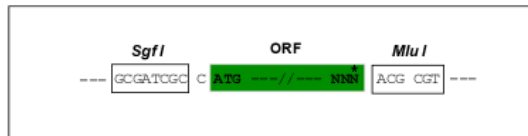
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

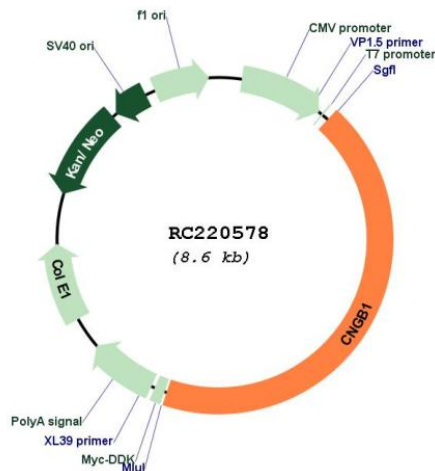
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001297

ORF Size: 3753 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:

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_001297.5](#)

RefSeq Size: 5663 bp

RefSeq ORF: 3756 bp

Locus ID: 1258

UniProt ID: [Q14028](#)

Cytogenetics:	16q21
Protein Families:	Druggable Genome, Ion Channels: Cyclic nucleotide gated
Protein Pathways:	Olfactory transduction
MW:	139.7 kDa
Gene Summary:	In humans, the rod photoreceptor cGMP-gated cation channel helps regulate ion flow into the rod photoreceptor outer segment in response to light-induced alteration of the levels of intracellular cGMP. This channel consists of two subunits, alpha and beta, with the protein encoded by this gene representing the beta subunit. Defects in this gene are a cause of cause of retinitis pigmentosa type 45. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2013]