

## Product datasheet for **RG218260**

### CACNA1H (NM\_001005407) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** CACNA1H (NM\_001005407) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** CACNA1H  
**Synonyms:** CACNA1HB; Cav3.2; ECA6; EIG6; HALD4  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG218260 representing NM\_001005407  
 Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence: >RG218260 representing NM\_001005407  
 Red=Cloning site Green=Tags(s)

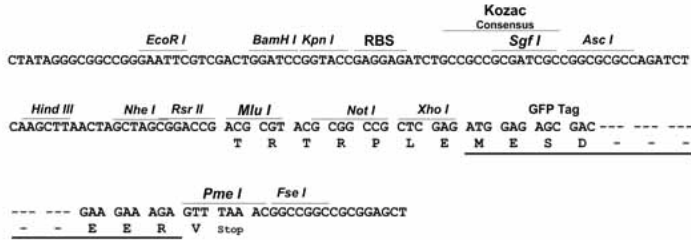
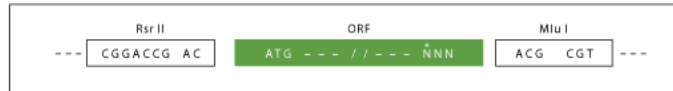
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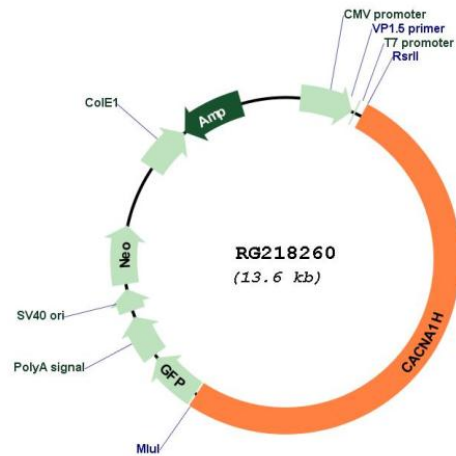
TRTRPLE - GFP Tag - V

Restriction Sites: RsrII-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_001005407

**ORF Size:** 7041 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001005407.1</a></u> , <u><a href="#">NP_001005407.1</a></u>
<b>RefSeq Size:</b>	8079 bp
<b>RefSeq ORF:</b>	7044 bp
<b>Locus ID:</b>	8912
<b>UniProt ID:</b>	<u><a href="#">O95180</a></u>
<b>Cytogenetics:</b>	16p13.3
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Calcium, Transmembrane
<b>Protein Pathways:</b>	Calcium signaling pathway, MAPK signaling pathway
<b>Gene Summary:</b>	<p>This gene encodes a T-type member of the alpha-1 subunit family, a protein in the voltage-dependent calcium channel complex. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization and consist of a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. The alpha-1 subunit has 24 transmembrane segments and forms the pore through which ions pass into the cell. There are multiple isoforms of each of the proteins in the complex, either encoded by different genes or the result of alternative splicing of transcripts. Alternate transcriptional splice variants, encoding different isoforms, have been characterized for the gene described here. Studies suggest certain mutations in this gene lead to childhood absence epilepsy (CAE). [provided by RefSeq, Jul 2008]</p>