

## Recombinant Human CACNA1G, His-tagged

**Cat. No.** CACNA1G-10634H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human CACNA1G protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 396-742a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | Voltage-sensitive calcium channels mediate the entry of calcium ions into excitable cells, and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division, and cell death. This gene encodes a T-type, low-voltage activated calcium channel. The T-type channels generate currents that are both transient, owing to fast inactivation, and tiny, owing to small conductance. T-type channels are thought to be involved in pacemaker activity, low-threshold calcium spikes, neuronal oscillations and resonance, and rebound burst firing. Many alternatively spliced transcript variants encoding different isoforms have been described for this gene. |
| <b>Storage</b>          | The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Storage Buffer</b>   | 1M PBS (58mM Na <sub>2</sub> HPO <sub>4</sub> , 17mM NaH <sub>2</sub> PO <sub>4</sub> , 68mM NaCl, pH8. ) added with 300mM Imidazole and 0.7% Sarcosyl, 15%glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | CACNA1G calcium channel, voltage-dependent, T type, alpha 1G subunit [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                               |
| <b>Official Symbol</b>     | CACNA1G                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Synonyms</b>            | calcium channel voltage dependent alpha 1G subunit; calcium channel voltage dependent T type alpha 1G subunit; calcium channel voltage dependent T type alpha1G subunit; CaV T1; Cav3 1; cav3 1c; KIAA1123; MGC117234; NBR13; voltage dependent calcium channel alpha 1G subunit isoform 11; voltage dependent T type calcium channel subunit alpha 1G; Voltage gated calcium channel subunit alpha Cav3 1; CACNA1G |
| <b>Gene ID</b>             | 8913                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>mRNA Refseq</b>         | NM_018896.4                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Protein Refseq</b>      | NP_061496.2                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>MIM</b>                 | 604065                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>UniProt ID</b>          | O43497                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Chromosome Location</b> | 17q22                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Pathway</b>             | Axon guidance, organism-specific biosystem; Calcium signaling pathway, organism-specific biosystem; Calcium signaling pathway, conserved biosystem; Developmental Biology, organism-specific biosystem; MAPK signaling pathway, organism-specific biosystem; MAPK signaling pathway, conserved biosystem; NCAM signaling for                                                                                        |

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neurite out-growth, organism-specific biosystem

**Function**

low voltage-gated calcium channel activity; scaffold protein binding

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