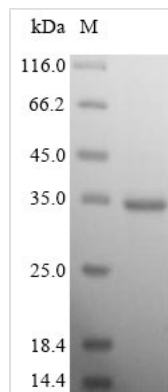




# Recombinant Human Voltage-dependent calcium channel subunit alpha-2/delta-1 (CACNA2D1), partial

<b>Product Code</b>	CSB-EP004407HU
<b>Relevance</b>	The alpha-2/delta subunit of voltage-dependent calcium channels regulates calcium current density and activation/inactivation kinetics of the calcium channel. Plays an important role in excitation-contraction coupling
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	P54289
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	QPKPIGVGIPTINLRKRRPNIQNPKSQEPVTLDFLDAELENDIKVEIRNKMIDGES GEKTFRTLKVSQDERYIDKGNRTYTWTPVNGTDYSLALVLPTYSFYIYKAKLEE TITQARYSETLKPDPNFEEESGYTFIAPRDYCN
<b>Lead Time</b>	3-7 business days
<b>Research Area</b>	others
<b>Source</b>	E.coli
<b>Gene Names</b>	CACNA2D1
<b>Protein Names</b>	Voltage-gated calcium channel subunit alpha-2/delta-1
<b>Expression Region</b>	528-668aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 6xHis-SUMO-tagged
<b>Mol. Weight</b>	32.3 kDa
<b>Protein Description</b>	Partial
<b>Image</b>	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

The region for expressing recombinant Human CACNA2D1 contains amino acids 528-668. The calculated molecular weight for this CACNA2D1 protein is 32.3 kDa. This CACNA2D1 protein is produced using e.coli expression system. The N-terminal 6xHis-SUMO tag was fused into the coding gene segment of CACNA2D1, making it easier to detect and purify the CACNA2D1 recombinant protein in the later stages of expression and purification.

Voltage-dependent calcium channel subunit alpha-2/delta-1 (CACNA2D1) is primarily studied in the fields of neurobiology and neuropharmacology. Within nerve cells, CACNA2D1 participates in the formation and regulation of voltage-dependent calcium channels, playing a crucial role in neural signal transmission and neuronal excitability. Research indicates that CACNA2D1 is associated with certain neurological disorders such as epilepsy and neuropathic pain. Scientists are exploring its precise role in the pathogenesis of these diseases, aiming to provide new targets and strategies for their treatment. Additionally, the study of CACNA2D1 extends to the cardiovascular system, particularly its function in cardiac muscle cells. Its regulatory mechanisms in cardiovascular diseases and arrhythmias are also subjects of considerable interest.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.