Recombinant CACB2 protein (His tag)

Catalog Number	544865
Synonyms	CAB2; Calcium channel voltage-dependent subunit beta 2; Lambert-Eaton myasthenic syndrome antigen B; MYSB
Species	Human
Expression System	E. coli
Accession	Q08289
Molecular Weight	Predictes a molecular mass of 13.50 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	89-191
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 89-191 aa (Q08289) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Voltage-dependent L-type calcium channel subunit beta-2 (CAB2) fragment (amino acids 89-191), a high-purity protein designed to encompass the SH3 domain. This fragment serves as an essential tool for investigating calcium channel regulation, G-protein modulation, and cardiac function mechanisms in research applications. The full-length Voltage-dependent L-type calcium channel subunit beta-2 (CAB2) functions as a critical regulatory subunit of voltage-dependent calcium channels, enhancing peak calcium current and modulating voltage dependencies of channel activation and inactivation. It plays a significant role in G protein inhibition and contributes to beta-adrenergic augmentation of calcium influx in cardiomyocytes, thereby regulating heart rate and contractile force. The protein is localized to the cell membrane and sarcolemma, functioning as a peripheral membrane protein on the cytoplasmic side, where it facilitates membrane targeting of the alpha-1 subunit CACNA1C. This positions CAB2 as a key player in calcium signaling pathways and cardiovascular physiology.