



# Recombinant Human Voltage-dependent L-type calcium channel subunit beta-4 (CACNB4)

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| <b>Product Code</b>      | CSB-EP004414HU-B  |
| <b>Storage</b>           | Store at -20°C, for extended storage, conserve at -20°C or -80°C.   |
| <b>Uniprot No.</b>       | O00305  |
| <b>Product Type</b>      | Recombinant Protein   |
| <b>Immunogen Species</b> | Homo sapiens (Human)  |
| <b>Purity</b>            | >85% (SDS-PAGE)   |
| <b>Sequence</b>          | MSSSSYAKNG TADGPHSPTS QVARGTTTRR SRLKRS DGST TSTSFILRQG<br>SADSYTSRPS DSDVSLEEDR EAIRQEREQQ AAIQLERAKS KPVAFAVKTN<br>VSYCGALDED VVPVSTAI SF DAKDFLHIKE KYNNDWWIGR LVKEGCEIGF<br>IPSPLRL ENI RIQQEQKRGR FHGGKSSGNS SSSLGEMVSG TFRATPTSTA<br>KQKQKVTEHI PPYDVVPSMR PVVLVGPLSK GYEVTDMMQK ALFDLKHFRF<br>DGRISITRVT ADISLAKRSV LNNPSKRAII ERSNTRSSLA EVQSEIERIF<br>ELARSLQLVV LDADTINHPA QLIKTSLAPI IVHVKVSSPK VLQRLIKSRG<br>KSQSKHLNVQ LVAADKLAQC PPEMFDVILD ENQLEDACEH LGEYLEAYWR<br>ATHHTSSTPM TPLLGRNLGS TALSPYPTAI SGLQSQRMRH SNHSTENSPI<br>ERRSLMTSDE NYHNERARKS RNRLSSSSQH SRDHYPLVEE DYPDSYQDTY<br>KPHRNRGSPG GYSHDSRHRL  |
| <b>Source</b>            | E.coli  |
| <b>Target Names</b>      | CACNB4  |
| <b>Protein Names</b>     | Recommended name: Voltage-dependent L-type calcium channel subunit beta-4 Short name= CAB4 Alternative name(s): Calcium channel voltage-dependent subunit beta 4  |
| <b>Expression Region</b> | 1-520   |
| <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>          | Tag type will be determined during the manufacturing process.   |
| <b>Protein Length</b>    | Full length protein   |
| <b>Target Details</b>    | This gene encodes a member of the beta subunit family of voltage-dependent calcium channel complex proteins. 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. Various versions of each of these subunits exist, either expressed from similar genes or the result of alternative splicing. The protein encoded by this locus plays an important role in calcium channel function by modulating G protein inhibition, increasing peak calcium current, controlling the alpha-1 subunit membrane targeting and shifting the voltage dependence of activation and inactivation. Certain mutations in this gene have been associated with idiopathic generalized epilepsy (IGE) and juvenile myoclonic epilepsy (JME). Multiple transcript |



variants encoding different isoforms have been found for this gene.

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**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.

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**Shelf Life**

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.