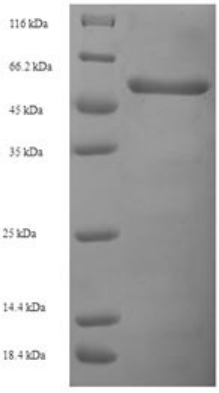
Recombinant Human Voltage-gated potassium channel subunit beta-2 (KCNAB2)

Product Code	CSB-EP012014HU
Relevance	Cytoplasmic domain potassium channel subunit that modulates the characteristics of the channel-forming alpha-subunits . Contributes to the regulation of nerve signaling, and prevents neuronal hyperexcitability . Promotes expression of the pore-forming alpha subunits at the cell mbrane, and thereby increases channel activity . Promotes potassium channel closure via a mechanism that does not involve physical obstruction of the channel pore . Promotes KCNA4 channel closure . Modulates the functional properties of KCNA5 . Enhances KCNB2 channel activity . Binds NADPH and has NADPH-dependent aldoketoreductase activity . Has broad substrate specificity and can catalyze the reduction of methylglyoxal, 9,10-phenanthrenequinone, prostaglandin J2, 4-nitrobenzaldehyde, 4-nitroacetophenone and 4-oxo-trans-2-nonenal (in vitro) .
Abbreviation	Recombinant Human KCNAB2 protein
Storage	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.
Uniprot No.	Q13303
Alias	K(+) channel subunit beta-2Kv-beta-2 ;hKvbeta2
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MYPESTTGSPARLSLRQTGSPGMIYSTRYGSPKRQLQFYRNLGKSGLRVSCL GLGTWVTFGGQITDEMAEQLMTLAYDNGINLFDTAEVYAAGKAEVVLGNIIKKK GWRRSSLVITTKIFWGGKAETERGLSRKHIIEGLKASLERLQLEYVDVVFANRP DPNTPMEETVRAMTHVINQGMAMYWGTSRWSSMEIMEAYSVARQFNLTPPIC EQAEYHMFQREKVEVQLPELFHKIGVGAMTWSPLACGIVSGKYDSGIPPYSRA SLKGYQWLKDKILSEEGRRQQAKLKELQAIAERLGCTLPQLAIAWCLRNEGVS SVLLGASNADQLMENIGAIQVLPKLSSSIIHEIDSILGNKPYSKKDYRS
Research Area	Neuroscience
Source	E.coli
Target Names	KCNAB2
Expression Region	1-367aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged

Mol. Weight	57.0kDa
Protein Length	Full Length

Image



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

Description

Inserting the gene encoding the Human KCNAB2 protein (1-367aa) into a plasmid vector results in the creation of recombinant plasmid, which is introduced into e.coli cells. e.coli cells that can survive in the presence of a specific antibiotic are selected, indicating successful uptake of the recombinant plasmid. The e.coli cells containing the recombinant plasmid are cultured under conditions promoting the expression of the gene of interest. A N-terminal 6xHis-SUMO tag is linked to the protein. After expression, affinity purification is used to isolate and purify the recombinant Human KCNAB2 protein from the cell lysate. Denaturing SDS-PAGE is then applied to resolve the resulting recombinant Human KCNAB2 protein, revealing a purity level exceeding 90%.

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.

Shelf Life

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