

Recombinant Human KCNJ10 protein, His-tagged

Cat. No. KCNJ10-2544H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human KCNJ10(224 - 426 aa) fused with His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	224 - 426 aa
Description	This gene encodes a member of the inward rectifier-type potassium channel family, characterized by having a greater tendency to allow potassium to flow into, rather than out of, a cell. The encoded protein may form a heterodimer with another potassium channel protein and may be responsible for the potassium buffering action of glial cells in the brain. Mutations in this gene have been associated with seizure susceptibility of common idiopathic generalized epilepsy syndromes.
Form	Protein lyophilized in sterile PBS (58 mM Na ₂ HPO ₄ , 17 mM NaH ₂ PO ₄ , 68 mM NaCl, 300 mM Imidazole, pH 8.0). Trehalose (5-8%) and mannitol (5-8%) protectants were added before lyophilization.
AA Sequence	ETIRFSQHAVVASHNGKPCLMIRVANMRKSLIGCQVTGKLLQTHQTKEGENIRLNQ VNVTFQVDTASDSPFLILPLTFYHVVDETSPLKDLPLRSGEGDFELVLILSGTVVESTSA TCQVRTSYLP EEILWGYEFTPAISLSASGKYIADFSLFDQVVKVASPSGLRDSTVRYG DPEKLEESLREQAEKEGSALSVRISNV

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Purity	70%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Storage	Stability and Storage: Store for up to 12 months at -20 centigrade to -80 centigrade as lyophilized powder. Storage of Reconstituted Protein: Short-term storage: Store at 2-8 centigrade for two weeks. Long-term storage: Aliquot and store at -20 centigrade to -80 centigrade for up to 6 months, buffer containing 50% glycerol is recommended for reconstitution. Avoid repeat freeze-thaw cycles.
Reconstitution	Reconstitute at 0.25 µg/µl in 200 µl sterile water for short-term storage. Reconstitution with 200 µl 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.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

GENE INFORMATION

Gene Name	KCNJ10 potassium inwardly-rectifying channel, subfamily J, member 10 [Homo sapiens]
Official Symbol	KCNJ10
Synonyms	KCNJ10; potassium inwardly-rectifying channel, subfamily J, member 10; ATP-

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sensitive inward rectifier potassium channel 10; Kir1.2; Kir4.1; inward rectifier K⁺ channel KIR1.2; inward rectifier K(+) channel Kir1.2; ATP-dependent inwardly rectifying potassium channel Kir4.1; potassium channel, inwardly rectifying subfamily J member 10; glial ATP-dependent inwardly rectifying potassium channel KIR4.1; KIR1.2; KIR4.1; SESAME; BIRK-10; KCNJ13-PEN;

Gene ID [3766](#)

mRNA Refseq [NM_002241](#)

Protein Refseq [NP_002232](#)

MIM [602208](#)

UniProt ID [P78508](#)

Chromosome Location 1q23.2

Pathway Activation of G protein gated Potassium channels, organism-specific biosystem; Activation of GABAB receptors, organism-specific biosystem; G protein gated Potassium channels, organism-specific biosystem; GABA B receptor activation, organism-specific biosystem; GABA receptor activation, organism-specific biosystem; Gastric acid secretion, organism-specific biosystem; Gastric acid secretion, conserved biosystem;

Function ATP binding; ATP-activated inward rectifier potassium channel activity; identical protein binding; nucleotide binding; potassium channel activity; protein binding; voltage-gated ion channel activity;

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