

Recombinant Rat KCNJ8 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52506

Size: 10ug, 100ug

Protein Name: ATP-sensitive inward rectifier potassium channel 8 (Inward rectifier K(+) channel Kir6.1) (Potassium channel, inwardly rectifying subfamily J member 8) (uKATP-1)

Synonym: Kcnj8

UniProt ID: Q63664

UniProt Link: www.uniprot.org/uniprotkb/Q63664/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 424 AA

Molecular Weight: 48 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLARKSIIP E EYVLARIAAENLRKPRI RDRLPKARFIAKSGACNLAHKNIREQGRFLQDIFTTLVDLKWR
HTLVIFTMSFLCSWLLFAIMWWLVAFAGDIYAYMEKGITEKSGLESACVCTNVRSFTSAFLFSIEVQV
TIGFGGRMMTEECPLAITVLILQNI VGLIINAVMLGCIFMKTAQAHRRAETLIFSRHAVIAVRNGKLCFM
FRVGDLRKSMIISASVRIQVVKKTTTPEGEVVP I HQQDIPVDNPIESNNIFLVAPLIICHVIDKRSPLYDIS
ATDLVNQDLEVIVILEGVVETTGIT TQARTSYIAEEIQWGHFRFVSIVTEEEGVYSVDYSKFGNTVRVAA
PRCSARELDEKPSILIQTLQKSEL SHQNSLRKRNSMRRNNSMRRSNSIRRNNSSLMVPKVQFMTPE
GNQCPS

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant ATP-sensitive inward rectifier potassium channel 8 (Inward rectifier K(+) channel Kir6.1) (Potassium channel, inwardly rectifying subfamily J member 8) (uKATP-1) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Inward rectifier potassium channels are characterized by a greater tendency to allow potassium to flow into the cell rather than out of it. Their voltage dependence is regulated by the concentration of extracellular potassium; as external potassium is raised, the voltage range of the channel opening shifts to more positive voltages. The inward rectification is mainly due to the blockage of outward current by internal magnesium. This channel is activated by internal ATP and can be blocked by external barium (PubMed:7890693). Can form a sulfonyllurea-sensitive but ATP-insensitive potassium channel with ABCC9 (By similarity).

Subcellular Localization: Membrane ; Multi-pass membrane protein .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.