KCNJ16 Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702345
Synonyms:	Inward rectifier potassium channel 16; Inward rectifier K(+) channel Kir5.1; Potassium channel, inwardly rectifying subfamily J member 16
Species:	Human
Source:	E. coli Cell-free
Accession:	Q9NPI9 (M1-M418)
Gene ID:	3773
Molecular Weight:	50.8 kDa

PROPERTIES

AA Sequence	MSYYGSSYHI INADAKYPGY PPEHIIAEKR RARRRLLHKD GSCNVYFKHI FGEWGSYVVD IFTTLVDTKW RHMFVIFSLS YILSWLIFGS VFWLIAFHHG DLLNDPDITP CVDNVHSFTG AFLFSLETQT TIGYGYRCVT EECSVAVLMV ILQSILSCII NTFIIGAALA KMATARKRAQ TIRFSYFALI GMRDGKLCLM WRIGDFRPNH VVEGTVRAQL LRYTEDSEGR MTMAFKDLKL VNDQIILVTP VTIVHEIDHE SPLYALDRKA VAKDNFEILV TFIYTGDSTG TSHQSRSSYV PREILWGHRF NDVLEVKRKY YKVNCLQFEG SVEVYAPFCS AKQLDWKDQQ LHIEKAPPVR ESCTSDTKAR RRSFSAVAIV SSCENPEETT TSATHEYRET PYQKALLTLN RISVESQM
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	KCNJ16 protein, belonging to the family of inward rectifier potassium channels, exhibits a distinctive property favoring the influx of potassium into the cell over efflux. The voltage dependence of these channels is modulated by extracellular potassium concentrations, resulting in a shift toward more positive voltages with elevated external potassium levels. Internal magnesium primarily contributes to the inward rectification by impeding outward current. Notably, KCNJ16 is implicated in the regulation of fluid and pH balance. In the kidney, in conjunction with KCNJ10, it plays a crucial role in mediating basolateral K(+) recycling in distal tubules, a process essential for Na(+) reabsorption. The formation of a heterodimer with Kir4.1/KCNJ10 is integral for KCNJ16 localization to the basolateral membrane in kidney cells. Moreover, as a heterodimer with KCNJ10, KCNJ16 may engage in an interaction with MAGI1, potentially facilitating the expression of the potassium channel at the basolateral membrane in kidney cells. Additionally, there is a possibility of heterodimer formation with Kir2.1/KCNJ2.

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