

KCNJ16 Protein, Rat (Cell-Free, His)

Cat. No.:	HY-P702346
Synonyms:	Inward rectifier potassium channel 16; BIR9; Inward rectifier K(+) channel Kir5.1; Potassium channel, inwardly rectifying subfamily J member 16
Species:	Rat
Source:	E. coli Cell-free
Accession:	P52191 (M1-M419)
Gene ID:	/
Molecular Weight:	54.0 kDa

PROPERTIES

AA Sequence	<pre> MSYYGSSYRI VNVDSKYPGY PPEHAIAEKR RARRRLLHKD GSCNVYFKHI FGEWGSYMVD IFTTLVDTKW RHMFFVFSLS YILSWLIFGS IFWLI ALHHG DLLSDPDITP CVDNVHSFTA AFLFSLETQT TIGYGYRCVT EECSVAVLTV ILQSI LSCI I NTFIIGAALA KMATARKRAQ TIRFSYFALI GMRDGKLC LM WRIGDFRPNH VVEGTVRAQL LRYSEDESEGR MTMAFKDLKL VNDQIILVTP VTIVHEIDHE SPLYALDRKA VAKDNFEILV TFIYTG DSTG TSHQSRSSYV PREILWGHRF HDVLEVKRKY YKVNCLQFEG SVEVYAPFCS AKQLDWKDQQ LNNLEKTPA RGSCTSDTNT RRRSFSAVAM VSSCENPEET SLSQPDECKE VPYQKALLTL NRISMESQM </pre>
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.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. 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, a member of inward rectifier potassium channels, exhibits a preference for allowing potassium influx rather than efflux, with its voltage sensitivity modulated by extracellular potassium concentration. The channel's inward rectification is primarily attributed to the inhibition of outward current by internal magnesium. Functionally, KCNJ16 is implicated in the regulation of fluid and pH balance. Particularly in the kidney, KCNJ16, in conjunction with KCNJ10, facilitates basolateral K(+) recycling in distal tubules, a critical process for Na(+) reabsorption in these tubules. As a heterodimer with KCNJ10, KCNJ16 forms an essential interaction with MAGI1, potentially contributing to the expression of potassium channels at the basolateral membrane in kidney cells. Moreover, KCNJ16 may engage in heterodimerization with Kir2.1/KCNJ2, expanding its functional associations within cellular membranes.

Caution: Product has not been fully validated for medical applications. For research use only.

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