KCNN4 Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702350
Synonyms:	Intermediate conductance calcium-activated potassium channel protein 4; IKCa1; IK1; KCa3.1; KCa4; Putative Gardos channel
Species:	Human
Source:	E. coli Cell-free
Accession:	O15554 (M1-K427)
Gene ID:	/
Molecular Weight:	59.1 kDa

PROPERTIES

AA Sequence	MGGDLVLGLG ALRRRKRLLE QEKSLAGWAL VLAGTGIGLM VLHAEMLWFG GCSWALYLFL VKCTISISTF LLLCLIVAFH AKEVQLFMTD NGLRDWRVAL TGRQAAQIVL ELVVCGLHPA PVRGPPCVQD LGAPLTSPQP WPGFLGQGEA LLSLAMLLRL YLVPRAVLLR SGVLLNASYR SIGALNQVRF RHWFVAKLYM NTHPGRLLLG LTLGLWLTTA WVLSVAERQA VNATGHLSDT LWLIPITFLT IGYGDVVPGT MWGKIVCLCT GVMGVCCTAL LVAVVARKLE FNKAEKHVHN FMMDIQYTKE MKESAARVLQ EAWMFYKHTR RKESHAARRH QRKLLAAINA FRQVRLKHRK LREQVNSMVD ISKMHMILYD LQQNLSSSHR ALEKQIDTLA GKLDALTELL STALGPRQLP EPSQQSK
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	The KCNN4 (Potassium Intermediate/Small Conductance Calcium-Activated Channel, Subfamily N, Member 4) protein functions as a voltage-independent potassium channel activated by intracellular calcium, leading to membrane hyperpolarization and subsequent promotion of calcium influx. It is essential for maximal calcium influx and proliferation during the reactivation of naive T-cells, highlighting its significance in immune response modulation. Additionally, KCNN4 plays a role in the late stages of EGF-induced macropinocytosis, underscoring its involvement in cellular processes beyond ion channel activity. Notably, the channel is inhibited by clotrimazole and charybdotoxin but remains insensitive to apamin, providing insight into potential pharmacological interventions for modulating KCNN4 function.

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