Recombinant KCNN2 protein (His tag)

Catalog Number	543597
Synonyms	SK2; SKCa 2; SKCa2; KCa2.2
Species	Human
Expression System	E. coli
Accession	Q9H2S1
Molecular Weight	Predictes a molecular mass of 19.24 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	395-543
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 395-543 aa (Q9H2S1) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 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.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Small conductance calcium-activated potassium channel protein 2 (SK2) fragment (residues 395-543) is a high-purity protein designed for structural and functional studies. This 149-amino acid fragment represents a stable, soluble region ideal for investigating the molecular mechanisms of calcium-activated potassium channel activity, supporting research in ion channel biology and cardiac electrophysiology. Small conductance calcium-activated potassium channel protein 2 (SK2), encoded by the KCNN2 gene, mediates voltage-independent potassium transport across cell membranes through constitutive calmodulin interaction. This channel activates in response to intracellular calcium concentration increases, exhibiting characteristic small single-channel conductance (approximately 3 pS) and inward rectification properties. SK2 plays a critical role in cardiac action potential repolarization and contributes to cellular electrical signaling. The protein localizes to the membrane as a multi-pass membrane protein and has additional presence in the cytoplasm, specifically associated with myofibril sarcomere Z lines. The selected fragment (395-543) provides a stable, soluble unit for structural and biochemical characterization without containing known functional domains.