Recombinant KCMB4 protein (His tag)

Catalog Number	540649
Synonyms	BK channel subunit beta-4; BKbeta4; Hbeta4; Calcium-activated potassium channel, subfamily M subunit beta-4; Charybdotoxin receptor subunit beta-4; K(VCA)beta-4; Maxi K channel subunit beta-4; Slo-beta-4
Species	Human
Expression System	E. coli
Accession	Q86W47
Molecular Weight	Predictes a molecular mass of 16.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	41-167
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 41-167 aa (Q86W47) 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 Calcium-activated potassium channel subunit beta-4 (KCNMB4) fragment (residues 41-167) is a 127-amino acid protein designed for structural and biochemical studies. This fragment represents a stable, soluble unit of the BK channel regulatory subunit, ideal for investigating its role in modulating calcium-activated potassium channel activity. The full-length Calcium-activated potassium channel subunit beta-4 (KCNMB4) is a regulatory subunit of the calcium-activated potassium KCNMA1 (maxiK) channel. It modulates the calcium sensitivity and gating kinetics of KCNMA1, contributing to channel diversity by decreasing gating kinetics and calcium sensitivity while exhibiting fast deactivation kinetics. This subunit may reduce channel openings at low calcium concentrations but enhance them at high concentrations, and confers resistance to charybdotoxin (CTX) toxin. As a multi-pass membrane protein, it is localized to the membrane, where it plays a critical role in fine-tuning potassium channel function in cellular signaling and excitability.