Recombinant LRC52 protein (His tag)

Catalog Number	545449
Synonyms	BK channel auxiliary gamma subunit LRRC52
Species	Human
Expression System	E. coli
Accession	Q8N7C0
Molecular Weight	Predictes a molecular mass of 26.79 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	24-244
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 24-244 aa (Q8N7C0) 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 Leucine-rich repeat-containing protein 52 (LRRC52) fragment (aa 24-244) is a high-purity protein designed for studying the BK and KCNU1 potassium channel auxiliary functions. This fragment fully encompasses the LRRNT and LRRCT domains, making it an ideal tool for investigating specific domain-mediated regulatory mechanisms in ion channel biology. Leucine-rich repeat-containing protein 52 (LRRC52) serves as an auxiliary subunit for large-conductance, voltage and calcium-activated potassium channels (BK alpha) and KCNU1 channels. It modulates gating properties by producing a marked shift in the BK channel's voltage dependence of activation in the hyperpolarizing direction, even in the absence of calcium. Located in the cell membrane as a single-pass membrane protein, LRRC52's expression at the cell surface may require the presence of KCNU1. This protein plays a crucial role in fine-tuning potassium channel activity, which is essential for understanding electrical signaling and cellular excitability in various physiological contexts.