Recombinant TRPC4 protein (His tag)

Catalog Number	541446
Synonyms	TrpC4; Trp-related protein 4; hTrp-4; hTrp4
Species	Human
Expression System	E. coli
Accession	Q9UBN4
Molecular Weight	Predictes a molecular mass of 43.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	1-362
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-362 aa (Q9UBN4) 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 Short Transient Receptor Potential Channel 4 (TrpC4) Fragment (residues 1-362) is a high-purity protein designed for structural and biochemical studies. This fragment represents a stable and soluble unit of the TRPC4 ion channel, which forms a receptor-activated, non-selective calcium-permeant cation channel, facilitating research into calcium signaling and cellular communication pathways. The full-length TRPC4 protein, encoded by the TRPC4 gene in Homo sapiens, functions as a receptor-activated non-selective calcium-permeant cation channel. It is involved in forming homomeric or heteromeric channels (e.g., with TRPC1), with roles in calcium entry, particularly in endothelial cells, where it acts in a cell-cell contact-dependent manner. TRPC4 is permeable to calcium and monovalent ions like sodium, lithium, and cesium, contributing to cellular signaling and ion homeostasis. It localizes to the cell membrane as a multi-pass membrane protein, with enhanced membrane insertion upon EGF receptor activation. Isoform Beta shares similar channel properties. This protein is significant for understanding calcium-dependent processes in physiology and disease.