Recombinant TRPC7 protein (His tag)

Catalog Number	541309
Synonyms	TrpC7; Transient receptor protein 7; TRP-7; hTRP7
Species	Human
Expression System	E. coli
Accession	Q9HCX4
Molecular Weight	Predictes a molecular mass of 37.37 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	40-351
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 40-351 aa (Q9HCX4) 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	This product is a recombinant fragment of the human Short transient receptor potential channel 7 (TrpC7), encompassing amino acids 40-351. It represents a stable, soluble unit ideal for structural studies and functional assays related to calcium-permeable cation channel activity. The full-length TRPC7 protein functions as a receptor-activated, non-selective calcium-permeable cation channel, likely regulated by phosphatidylinositol second messenger systems downstream of receptor tyrosine kinases or G-protein coupled receptors. It is activated by diacylglycerol (DAG) and may respond to intracellular calcium store depletion. TRPC7 localizes to the cell membrane as a multi-pass membrane protein and is also found in the nuclear envelope, indicating potential roles in cellular signaling and nuclear processes.