Recombinant TRPV2 protein (His tag)

Catalog Number	548604
Synonyms	TrpV2; Osm-9-like TRP channel 2; OTRPC2; Vanilloid receptor-like protein 1; VRL-1
Species	Human
Expression System	E. coli
Accession	Q9Y5S1
Molecular Weight	Predictes a molecular mass of 44.96 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	1-390
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 1-390 aa (Q9Y5S1) 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 recombinant protein product features a stable 1-390 amino acid fragment of Human Transient Receptor Potential Cation Channel Subfamily V Member 2 (TRPV2), specifically engineered for structural and biochemical studies. This soluble fragment provides researchers with a reliable tool to investigate the fundamental properties of this temperature-sensitive ion channel without the complexities of the full-length membrane protein. TRPV2 functions as a calcium-permeable, non-selective cation channel that exhibits outward rectification. The channel is regulated by various factors including IGF1, PDGF, and neuropeptide head activator, and may transduce physical stimuli in mast cells. Notably, TRPV2 is activated by high temperatures exceeding 52°C, though unlike related channels, it is not activated by vanilloids or acidic pH. The full-length protein localizes primarily to the cell membrane as a multi-pass membrane protein, with additional presence in the cytoplasm and melanosomes. Research indicates that TRPV2 translocates from the cytoplasm to the plasma membrane upon ligand stimulation, highlighting its dynamic cellular regulation and importance in sensory transduction pathways.