Recombinant TTYH2 protein (His tag)

Catalog Number	545808
Synonyms	hTTY2; Volume-regulated anion channel subunit TTYH2
Species	Human
Expression System	E. coli
Accession	Q9BSA4
Molecular Weight	Predictes a molecular mass of 15.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	262-388
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 262-388 aa (Q9BSA4) 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 Protein tweety homolog 2 (hTTY2) fragment (residues 262-388) is a high-purity, soluble protein designed for structural and functional studies of the human volume-regulated anion channel subunit TTYH2. This fragment offers a stable and well-characterized unit ideal for investigating ion channel mechanisms and regulatory volume decrease processes. Protein tweety homolog 2 (TTYH2) is a multi-pass membrane protein located in the cell membrane, functioning as a calcium-independent, swelling-dependent volume-regulated anion channel (VRAC-swell). It plays a critical role in regulatory volume decrease (RVD) in the brain by mediating the efflux of anions such as chloride and organic osmolytes like glutamate, contributing to cellular homeostasis. Evidence also suggests it may act as a large-conductance calcium-activated chloride channel, highlighting its importance in neuronal physiology and potential implications in channelopathy-related research.