Recombinant CTL2 protein (His tag)

Catalog Number	540683
Synonyms	Solute carrier family 44 member 2
Species	Human
Expression System	E. coli
Accession	Q8IWA5
Molecular Weight	Predictes a molecular mass of 21.87 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	55-232
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 55-232 aa (Q8IWA5) 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 and soluble fragment (amino acids 55-232) of the human Choline transporter-like protein 2 (Solute carrier family 44 member 2), encoded by the SLC44A2 gene. This fragment is designed for structural and biochemical studies, offering researchers a reliable tool to investigate the molecular mechanisms of choline and ethanolamine transport. The full-length Choline transporter-like protein 2 (SLC44A2) functions as a choline/H+ antiporter, primarily localized in mitochondria, and also acts as a low-affinity ethanolamine/H+ antiporter. It plays a critical role in regulating extracellular ethanolamine supply for the CDP-Etn pathway and balances the CDP-Cho and CDP-Etn arms of the Kennedy pathway, which are essential for phospholipid synthesis. The protein is a multi-pass membrane protein found in both the cell membrane and mitochondrial outer membrane, with predominant mitochondrial expression. Isoform 1 exhibits these transport activities, while Isoform 3 lacks choline transporter function. This protein's involvement in choline and ethanolamine homeostasis makes it significant for research in cellular metabolism and membrane biology.