Recombinant CTL4 protein (His tag)

Catalog Number	540433
Synonyms	Solute carrier family 44 member 4; Thiamine pyrophosphate transporter 1; hTPPT1
Species	Human
Expression System	E. coli
Accession	Q53GD3
Molecular Weight	Predictes a molecular mass of 15.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	56-183
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 56-183 aa (Q53GD3) 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 Choline Transporter-like Protein 4 (SLC44A4) Fragment (56-183) is a highly stable and soluble 128-amino acid protein fragment designed for structural and biochemical studies. This product enables researchers to investigate key functional aspects of the full-length protein, including its roles in choline transport and thiamine pyrophosphate uptake, in a manageable experimental format. Choline Transporter-like Protein 4 (SLC44A4), also known as Thiamine Pyrophosphate Transporter 1 (hTPPT1), is a multi-pass membrane protein localized to the apical cell membrane in human tissues. It functions as a choline transporter critical for the choline-acetylcholine system, playing essential roles in efferent innervation of hair cells within the olivocochlear bundle. This activity supports outer hair cell function and provides protection against acoustic injury. Additionally, SLC44A4 serves as a thiamine pyrophosphate transporter in the colon, where it mediates absorption of microbiota-generated thiamine pyrophosphate and contributes to host thiamine (vitamin B1) homeostasis. Isoform 3 specifically retains thiamine pyrophosphate transporter activity, highlighting the protein's dual functional significance in neurological and metabolic processes.