Recombinant CUTC protein (His tag)

Catalog Number	543737
Species	Human
Expression System	E. coli
Accession	Q9NTM9
Molecular Weight	Predictes a molecular mass of 31.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	1-273
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 1-273 aa (Q9NTM9) 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 Copper homeostasis protein cutC homolog (CUTC), fragment 1-273, is a high-quality protein product designed for studying copper homeostasis mechanisms. This stable and soluble fragment is ideal for structural, biochemical, and functional assays, offering researchers a reliable tool to explore copper binding and cellular metal regulation. The full-length Copper homeostasis protein cutC homolog, encoded by the CUTC gene in Homo sapiens, is implicated in maintaining copper homeostasis within cells. It functions by binding one Cu(1+) ion per subunit, playing a potential role in copper trafficking or detoxification pathways. The protein is localized in the cytoplasm and, depending on the cell type, may also be present in the nucleus, suggesting involvement in both cytoplasmic and nuclear processes related to copper metabolism. This recombinant fragment (1-273) was selected computationally to ensure stability and solubility, facilitating detailed investigations into its copper-binding properties and broader biological significance.