Recombinant CHAC2 protein (His tag)

Catalog Number	549856
Synonyms	Gamma-GCG 2; Cation transport regulator-like protein 2
Species	Human
Expression System	E. coli
Accession	Q8WUX2
Molecular Weight	Predictes a molecular mass of 22.53 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	1-184
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 1-184 aa (Q8WUX2) 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 Glutathione-specific gamma-glutamylcyclotransferase 2 (Gamma-GCG 2) fragment (residues 1-184) from Homo sapiens, offering a stable and soluble unit ideal for structural studies and enzymatic assays investigating glutathione metabolism. Glutathione-specific gamma-glutamylcyclotransferase 2, encoded by the CHAC2 gene, catalyzes the specific cleavage of glutathione into 5-oxo-L-proline and Cys-Gly dipeptide, playing a critical role in glutathione homeostasis and oxidative stress regulation. Unlike other gamma-glutamyl peptides, this enzyme exhibits exclusive substrate specificity for glutathione. Located in the cytosol, it functions within the cytoplasmic compartment to modulate redox balance and cellular detoxification pathways, as supported by experimental evidence (UniProt ID: Q8WUX2).