Recombinant CLIC4 protein (His tag)

Catalog Number	548612
Synonyms	Glutaredoxin-like oxidoreductase CLIC4; Intracellular chloride ion channel protein p64H1
Species	Human
Expression System	E. coli
Accession	Q9Y696
Molecular Weight	Predictes a molecular mass of 24.16 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	58-253
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 58-253 aa (Q9Y696) 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 CLIC4 Fragment (aa 58-253) – a high-purity protein fragment encompassing the GST C-terminal domain, ideal for investigating redox-regulated ion channel activity and thiol-disulfide exchange mechanisms in cellular signaling and membrane dynamics. Chloride intracellular channel protein 4 (CLIC4) is a multifunctional human protein that operates in both soluble and membrane-integrated states. In its soluble form, it catalyzes glutaredoxin-like thiol-disulfide exchange reactions using reduced glutathione as an electron donor, contributing to cellular redox homeostasis. Under oxidizing conditions, CLIC4 can insert into membranes to form voltage-dependent multi-ion conductive channels, with membrane insertion being redox-regulated. Beyond its channel function, CLIC4 is implicated in angiogenesis, endothelial cell proliferation, morphogenesis (tubulogenesis), and maintaining apical-basolateral membrane polarity during mitosis and cytokinesis. It also promotes cell-surface expression of HRH3. Subcellularly, CLIC4 localizes to the cytoplasm, cytoskeleton, centrosome, cytoplasmic vesicle membranes, nucleus, cell membrane, mitochondria, cell junctions, and endoplasmic reticulum, existing as both a soluble protein and a single-pass membrane protein. Its dynamic localization underscores roles in intracellular trafficking, structural organization, and redox-sensitive signaling pathways.