Recombinant CLCC1 protein (His tag)

Catalog Number	541075
Synonyms	ER anion channel 1; ERAC1; Mid-1-related chloride channel protein
Species	Human
Expression System	E. coli
Accession	Q96S66
Molecular Weight	Predictes a molecular mass of 21.01 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	19-184
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 19-184 aa (Q96S66) 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 CLCC1 Protein Fragment (aa 19-184) - A high-quality, soluble fragment of the Chloride channel CLIC-like protein 1 (ER anion channel 1), specifically engineered for structural and functional studies of endoplasmic reticulum calcium homeostasis and protein folding regulation. Chloride channel CLIC-like protein 1 (CLCC1) functions as an anion-selective channel with calcium-dependent, voltage-independent gating properties, exhibiting selectivity for bromide > chloride > nitrate > fluoride. Located in the endoplasmic reticulum (ER) membrane as a multi-pass membrane protein, CLCC1 mediates chloride efflux to compensate for positive charge loss during calcium release from the ER lumen. This critical function supports the maintenance of ER calcium pools and activates the unfolded protein response to prevent accumulation of misfolded proteins. The protein is particularly enriched in mitochondria-associated ER membranes and rough ER, playing essential roles in ER homeostasis mechanisms that underlie motor neuron and retinal photoreceptor survival, making it a significant target for neurodegenerative and retinal disease research.