Recombinant EMC7 protein (His tag)

Catalog Number	548314
Synonyms	ER membrane protein complex subunit 7
Species	Human
Expression System	E. coli
Accession	Q9NPA0
Molecular Weight	Predictes a molecular mass of 14.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	43-159
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 43-159 aa (Q9NPA0) 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 EMC7 (Endoplasmic reticulum membrane protein complex subunit 7) fragment (residues 43-159) is a highly stable and soluble protein unit designed for structural and functional studies. This fragment supports research on membrane protein insertion mechanisms, offering a reliable tool for investigating endoplasmic reticulum-associated processes. The full-length Endoplasmic reticulum membrane protein complex subunit 7 (EMC7), encoded by the EMC7 gene, is a critical component of the endoplasmic reticulum membrane protein complex (EMC). This complex facilitates the energy-independent insertion of newly synthesized membrane proteins into the endoplasmic reticulum membrane, particularly those with weakly hydrophobic transmembrane domains or destabilizing features like charged and aromatic residues. EMC7 plays essential roles in both cotranslational insertion of multi-pass membrane proteins and post-translational insertion of tail-anchored proteins. It helps determine membrane protein topology by ensuring proper insertion of N-terminal transmembrane domains with N-exo orientation, thereby influencing the function of various proteins including G protein-coupled receptors. Located in the endoplasmic reticulum membrane as a single-pass type I membrane protein, EMC7 indirectly participates in numerous cellular processes through its regulation of membrane protein insertion.