Recombinant EMC3 protein (His tag)

Catalog Number	539122
Synonyms	Transmembrane protein 111
Species	Human
Expression System	E. coli
Accession	Q9P0I2
Molecular Weight	Predictes a molecular mass of 10.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	39-114
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 39-114 aa (Q9P0I2) 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 EMC3 Protein Fragment (aa 39-114) - A stable, soluble unit of the endoplasmic reticulum membrane protein complex subunit 3, specifically designed for structural and biochemical studies of membrane protein insertion mechanisms. EMC3 (ER membrane protein complex subunit 3) is a crucial component of the endoplasmic reticulum membrane protein complex that facilitates the energy-independent insertion of newly synthesized membrane proteins into ER membranes. This multi-pass transmembrane protein preferentially accommodates proteins with weakly hydrophobic transmembrane domains or those containing destabilizing features such as charged and aromatic residues. EMC3 plays essential roles in both cotranslational insertion of multi-pass membrane proteins and post-translational insertion of tail-anchored proteins. Importantly, it controls the topology of multi-pass membrane proteins like G protein-coupled receptors by mediating proper cotranslational insertion of N-terminal transmembrane domains. Through its regulation of membrane protein insertion, EMC3 indirectly influences numerous cellular processes, making it a protein of significant biological interest for understanding fundamental cellular mechanisms.