Recombinant EDEM1 protein (His tag)

Catalog Number	545592
Species	Human
Expression System	E. coli
Accession	Q92611
Molecular Weight	Predictes a molecular mass of 56.83 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 58 kDa band.

Product Information

Sequence Region	113-597
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 113-597 aa (Q92611) 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 EDEM1 (ER degradation-enhancing alpha-mannosidase-like protein 1) Fragment (aa 113-597) is a high-purity protein designed for structural and biochemical studies. This fragment represents a stable, soluble unit of EDEM1, optimized for investigating its critical role in endoplasmic reticulum-associated degradation (ERAD) and glycoprotein quality control. EDEM1 is a key player in endoplasmic reticulum (ER)-associated degradation (ERAD), where it extracts misfolded glycoproteins from the calnexin cycle and targets them for degradation, functioning independently of N-glycans and potentially forming complexes with SEL1L. It exhibits low mannosidase activity, trimming mannose residues from Man8GlcNAc2 to Man7GlcNAc2. Located in the ER membrane as a single-pass type II membrane protein, EDEM1 ensures cellular proteostasis by eliminating aberrant glycoproteins, with implications for understanding protein misfolding diseases. This recombinant fragment (aa 113-597) was selected computationally for stability and solubility, enabling detailed mechanistic studies.