Recombinant AMFR protein (His tag)

Catalog Number	548499
Synonyms	Autocrine motility factor receptor; AMF receptor; RING finger protein 45; gp78
Species	Human
Expression System	E. coli
Accession	Q9UKV5
Molecular Weight	Predictes a molecular mass of 11.88 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	297-383
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 297-383 aa (Q9UKV5) 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 E3 ubiquitin-protein ligase AMFR fragment (residues 297-383) is a high-purity, stable protein product designed for structural and biochemical studies. This 87-amino acid fragment, derived from the full-length AMFR protein, offers researchers a soluble and well-characterized tool to investigate the mechanisms of ubiquitination and endoplasmic reticulum-associated degradation (ERAD) pathways. The full-length E3 ubiquitin-protein ligase AMFR (EC 2.3.2.36) is a multi-pass membrane protein localized to the endoplasmic reticulum membrane, where it plays a central role in protein quality control through ERAD. As an E3 ubiquitin ligase, AMFR mediates polyubiquitination of diverse substrates including CD3D, CYP3A4, CFTR, INSIG1, and APOB, targeting them for proteasomal degradation. It functions as a key component of the VCP/p97-AMFR/gp78 complex that facilitates the final step of ERAD, particularly in sterol-accelerated degradation of HMGCR. Beyond ERAD, AMFR regulates multiple signaling pathways including Wnt signaling through degradation of CTNNB1, FZD6, and LRP6, and modulates NF-kappa-B and MAPK signaling via TAB3 ubiquitination. The protein also serves as a receptor for autocrine motility factor, mediating tumor invasion and metastasis, and plays essential roles in lipid homeostasis through its interactions with sterol regulatory proteins.