

AMFR Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702210
Synonyms:	E3 ubiquitin-protein ligase AMFR; Autocrine motility factor receptor; AMF receptor; RING finger protein 45; gp78
Species:	Human
Source:	E. coli Cell-free
Accession:	Q9UKV5 (M1-S643)
Gene ID:	267
Molecular Weight:	79.0 kDa

PROPERTIES

AA Sequence

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M P L L F L E R F P   W P S L R T Y T G L   S G L A L L G T I I   S A Y R A L S Q P E
A G P G E P D Q L T   A S L Q P E P P A P   A R P S A G G P R A   R D V A Q Y L L S D
S L F V W V L V N T   A C C V L M L V A K   L I Q C I V F G P L   R V S E R Q H L K D
K F W N F I F Y K F   I F I F G V L N V Q   T V E E V V M W C L   W F A G L V F L H L
M V Q L C K D R F E   Y L S F S P T T P M   S S H G R V L S L L   V A M L L S C C G L
A A V C S I T G Y T   H G M H T L A F M A   A E S L L V T V R T   A H V I L R Y V I H
L W D L N H E G T W   E G K G T Y V Y Y T   D F V M E L T L L S   L D L M H H I H M L
L F G N I W L S M A   S L V I F M Q L R Y   L F H E V Q R R I R   R H K N Y L R V V G
N M E A R F A V A T   P E E L A V N N D D   C A I C W D S M Q A   A R K L P C G H L F
H N S C L R S W L E   Q D T S C P T C R M   S L N I A D N N R V   R E E H Q G E N L D
E N L V P V A A A E   G R P R L N Q H N H   F F H F D G S R I A   S W L P S F S V E V
M H T T N I L G I T   Q A S N S Q L N A M   A H Q I Q E M F P Q   V P Y H L V L Q D L
Q L T R S V E I T T   D N I L E G R I Q V   P F P T Q R S D S I   R P A L N S P V E R
P S S D Q E E G E T   S A Q T E R V P L D   L S P R L E E T L D   F G E V E V E P S E
V E D F E A R G S R   F S K S A D E R Q R   M L V Q R K D E L L   Q Q A R K R F L N K
S S E D D A A S E S   F L P S E G A S S D   P V T L R R R M L A   A A A E R R L Q K Q
Q T S
  
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Appearance Lyophilized powder.

Formulation Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

AMFR, an E3 ubiquitin-protein ligase, orchestrates the polyubiquitination of target proteins, including CD3D, CYP3A4, CFTR, INSIG1, SOAT2/ACAT2, and APOB, marking them for proteasomal degradation. As a component of the VCP/p97-AMFR/gp78 complex, it plays a pivotal role in the endoplasmic reticulum-associated degradation (ERAD) process, facilitating the degradation of HMGCR and INSIG1 during sterol-accelerated ERAD. Through interaction with AUP1, AMFR engages with ubiquitin-conjugating enzyme UBE2G2 and ubiquitin ligase RNF139, contributing to sterol-induced HMGCR ubiquitination and subsequent degradation. Furthermore, AMFR participates in ubiquitination on cysteine residues, targeting SOAT2/ACAT2 and INSIG2 for degradation under specific cellular conditions. Acting as a scaffold protein, AMFR assembles a complex that couples ubiquitination, retranslocation, and deglycosylation. It serves as a receptor for GPI/autocrine motility factor, promoting tumor invasion and metastasis. Moreover, in collaboration with LMBR1L and UBAC2, AMFR negatively regulates the canonical Wnt signaling pathway by facilitating the ubiquitin-mediated degradation of CTNNB1 and Wnt receptors FZD6 and LRP6, and it modulates NF-kappa-B and MAPK signaling pathways by mediating 'Lys-27'-linked polyubiquitination of TAB3, leading to TAK1/MAP3K7 activation.

Caution: Product has not been fully validated for medical applications. For research use only.

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