

Datasheet for ABIN3119036

AMFR Protein (AA 1-643) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	AMFR
Protein Characteristics:	AA 1-643
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This AMFR protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AlIcE®
Sequence:	<p>MPLLFLERFP WPSLRTYTGL SGLALLGTII SAYRALSQPE AGPGEPDQLT ASLQPEPPAP</p> <p>ARPSAGGPRA RDVAQYLLSD SLFVWVLVNT ACCVLMLVAK LIQCIVFGPL RVSERQHLKD</p> <p>KFWNFIFYKF IFIFGVNLVQ TVEEVVMWCL WFAGLVFLHL MVQLCKDRFE YLSFSPTTPM</p> <p>SSHGRVLSLL VAMLLSCCGL AAVCSITGYT HGMHTLAFMA AESLLVTVRT AHVILRYVIH</p> <p>LWDLNHEGTW EGKGTYYVYT DFMELTLLS LDLMHHIHM LFGNIWLSMA SLVIFMQLRY</p> <p>LFHEVQRRIR RHKNYLRVVG NMEARFAVAT PEELAVNND CAICWDSMQA ARKLPCGHLF</p> <p>HNSCLRSWLE QDTSCPTCRM SLNIADNNRV REEHQGENLD ENLVPVAAAE GRPRLNQHNH</p> <p>FFHFDGSRIA SWLPFSVEV MHTTNILGIT QASNSQLNAM AHQIQEMFPQ VPYHLVLQDL</p> <p>QLTRSVEITT DNILEGRIQV PFPTQRSDSI RPALNSPVER PSSDQEEGET SAQTERVPLD</p> <p>LSPRLEETLD FGEVEVEPSE VEDFEARGSR FSKSADERQR MLVQRKDELL QQARKRFLNK</p> <p>SSEDDAASES FLPSEGASSD PVTLRRRMLA AAAERRLQKQ QTS</p>

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Purity:

> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Product Details

Grade: custom-made

Target Details

Target: AMFR

Alternative Name: AMFR ([AMFR Products](#))

Background: E3 ubiquitin-protein ligase AMFR (EC 2.3.2.36) (Autocrine motility factor receptor) (AMF receptor) (RING finger protein 45) (gp78),FUNCTION: E3 ubiquitin-protein ligase that mediates the polyubiquitination of lysine and cysteine residues on target proteins, such as CD3D, CYP3A4, CFTR, INSIG1, SOAT2/ACAT2 and APOB for proteasomal degradation (PubMed:10456327, PubMed:11724934, PubMed:12670940, PubMed:19103148, PubMed:24424410, PubMed:28604676). Component of a VCP/p97-AMFR/gp78 complex that participates in the final step of endoplasmic reticulum-associated degradation (ERAD) (PubMed:10456327, PubMed:11724934, PubMed:19103148, PubMed:24424410). The VCP/p97-AMFR/gp78 complex is involved in the sterol-accelerated ERAD degradation of HMGCR through binding to the HMGCR-INSIG1 complex at the ER membrane (PubMed:16168377, PubMed:22143767). In addition, interaction of AMFR with AUP1 facilitates interaction of AMFR with ubiquitin-conjugating enzyme UBE2G2 and ubiquitin ligase RNF139, leading to sterol-induced HMGCR ubiquitination (PubMed:23223569). The ubiquitinated HMGCR is then released from the ER into the cytosol for subsequent destruction (PubMed:16168377, PubMed:22143767, PubMed:23223569). In addition to ubiquitination on lysine residues, catalyzes ubiquitination on cysteine residues: together with INSIG1, mediates polyubiquitination of SOAT2/ACAT2 at 'Cys-277', leading to its degradation when the lipid levels are low (PubMed:28604676). Catalyzes ubiquitination and subsequent degradation of INSIG1 when cells are depleted of sterols (PubMed:17043353). Mediates polyubiquitination of INSIG2 at 'Cys-215' in some tissues, leading to its degradation (PubMed:31953408). Also regulates ERAD through the ubiquitination of UBL4A a component of the BAG6/BAT3 complex (PubMed:21636303). Also acts as a scaffold protein to assemble a complex that couples ubiquitination, retranslocation and deglycosylation (PubMed:21636303). Mediates tumor invasion and metastasis as a receptor for the GPI/autocrine motility factor (PubMed:10456327). In association with LMBR1L and UBAC2, negatively regulates the canonical Wnt signaling pathway in the lymphocytes by promoting the ubiquitin-mediated degradation of CTNNB1 and Wnt receptors FZD6 and LRP6 (PubMed:31073040). Regulates NF-kappa-B and MAPK signaling pathways by mediating 'Lys-27'-linked polyubiquitination of TAB3 and promoting subsequent TAK1/MAP3K7 activation (PubMed:36593296). Required for proper lipid homeostasis (PubMed:37119330). {ECO:0000269|PubMed:10456327,

Target Details

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ECO:0000269|PubMed:36593296, ECO:0000269|PubMed:37119330}.

Molecular Weight: 73.0 kDa

UniProt: [Q9UKV5](#)

Pathways: [ER-Nucleus Signaling](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

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Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months