

#### **AMFR Antibody (Center)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP14958c

### **Specification**

### **AMFR Antibody (Center) - Product Information**

WB,E **Application Primary Accession 09UKV5** NP 001135.3 Other Accession Reactivity Human Host **Rabbit** Clonality **Polyclonal** Isotype Rabbit IgG Calculated MW 72996 Antigen Region 371-400

### **AMFR Antibody (Center) - Additional Information**

#### Gene ID 267

#### **Other Names**

E3 ubiquitin-protein ligase AMFR, 632-, Autocrine motility factor receptor, AMF receptor, RING finger protein 45, gp78, AMFR, RNF45

### Target/Specificity

This AMFR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 371-400 amino acids from the Central region of human AMFR.

### **Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

#### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

### **Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

AMFR Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

# **AMFR Antibody (Center) - Protein Information**

Name AMFR {ECO:0000303|PubMed:10456327, ECO:0000312|HGNC:HGNC:463}



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/qp78 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).

#### **Cellular Location**

Endoplasmic reticulum membrane; Multi-pass membrane protein. Note=Palmitoylation promotes localization to the peripheral endoplasmic reticulum

### **Tissue Location**

Widely expressed..

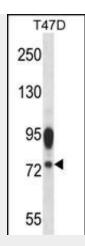
## **AMFR Antibody (Center) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# AMFR Antibody (Center) - Images





AMFR Antibody (Center) (Cat. #AP14958c) western blot analysis in T47D cell line lysates (35ug/lane). This demonstrates the AMFR antibody detected the AMFR protein (arrow).

# **AMFR Antibody (Center) - Background**

Autocrine motility factor is a tumor motility-stimulating protein secreted by tumor cells. The protein encoded by this gene is a glycosylated transmembrane protein and a receptor for autocrine motility factor. The receptor, which shows some sequence similarity to tumor protein p53, is localized to the leading and trailing edges of carcinoma cells.

# **AMFR Antibody (Center) - References**

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Shmueli, A., et al. Biochem. Biophys. Res. Commun. 390(3):758-762(2009)
Ying, Z., et al. Hum. Mol. Genet. 18(22):4268-4281(2009)