

Anti-ADAM10 Antibody

Rabbit polyclonal antibody to ADAM10 Catalog # AP61040

Specification

Anti-ADAM10 Antibody - Product Information

Application WB
Primary Accession O14672
Other Accession O35598

Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Calculated MW 84142

Anti-ADAM10 Antibody - Additional Information

Gene ID 102

Other Names

KUZ; MADM; Disintegrin and metalloproteinase domain-containing protein 10; ADAM 10; CDw156; Kuzbanian protein homolog; Mammalian disintegrin-metalloprotease; CD156c

Target/Specificity

Recognizes endogenous levels of ADAM10 protein.

Dilution

WB~~WB (1/500 - 1/1000)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-ADAM10 Antibody - Protein Information

Name ADAM10 (HGNC:188)

Synonyms KUZ, MADM

Function

Transmembrane metalloprotease which mediates the ectodomain shedding of a myriad of transmembrane proteins, including adhesion proteins, growth factor precursors and cytokines being essential for development and tissue homeostasis (PubMed:11786905, PubMed:12475894, PubMed:20592283, PubMed:<a



href="http://www.uniprot.org/citations/24990881" target=" blank">24990881, PubMed:26686862, PubMed:28600292, PubMed:31792032). Associates with six members of the tetraspanin superfamily TspanC8 which regulate its exit from the endoplasmic reticulum and its substrate selectivity (PubMed: 26686862, PubMed:28600292, PubMed:31792032, PubMed:<a $href="http://www.uniprot.org/citations/34739841" target="_blank">34739841, PubMed: 34739841, PubMed: 37516108). Cleaves the$ membrane-bound precursor of TNF-alpha at '76-Ala-|-Val-77' to its mature soluble form. Responsible for the proteolytical release of soluble JAM3 from endothelial cells surface (PubMed: 20592283). Responsible for the proteolytic release of several other cell-surface proteins, including heparin-binding epidermal growth-like factor, ephrin-A2, CD44, CDH2 and for constitutive and regulated alphasecretase cleavage of amyloid precursor protein (APP) (PubMed: 11786905, PubMed:26686862, PubMed:29224781, PubMed:34739841). Contributes to the normal cleavage of the cellular prion protein (PubMed: 11477090). Involved in the cleavage of the adhesion molecule L1 at the cell surface and in released membrane vesicles, suggesting a vesicle-based protease activity (PubMed:12475894). Also controls the proteolytic processing of Notch and mediates lateral inhibition during neurogenesis (By similarity). Required for the development of type 1 transitional B cells into marginal zone B cells, probably by cleaving Notch (By similarity). Responsible for the FasL ectodomain shedding and for the generation of the remnant ADAM10-processed FasL (FasL APL) transmembrane form (PubMed:17557115). Also cleaves the ectodomain of the integral membrane proteins CORIN and ITM2B (PubMed: 19114711, PubMed:21288900). Mediates the proteolytic cleavage of LAG3, leading to release the secreted form of LAG3 (By similarity). Mediates the proteolytic cleavage of IL6R and IL11RA, leading to the release of secreted forms of IL6R and IL11RA (PubMed: 26876177). Enhances the cleavage of CHL1 by BACE1 (By similarity). Cleaves NRCAM (By similarity). Cleaves TREM2, resulting in shedding of the TREM2 ectodomain (PubMed:24990881). Involved in the development and maturation of glomerular and coronary vasculature (By similarity). During development of the cochlear organ of Corti, promotes pillar cell separation by forming a ternary complex with CADH1 and EPHA4 and cleaving CADH1 at adherens junctions (By similarity). May regulate the EFNA5-EPHA3 signaling (PubMed:16239146). Regulates leukocyte transmigration as a sheddase for the adherens junction protein VE- cadherin/CDH5 in endothelial cells (PubMed: 28600292).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Golgi apparatus membrane; Single-pass type I membrane protein. Cytoplasmic vesicle, clathrin-coated vesicle. Cell projection, axon {ECO:0000250|UniProtKB:O35598}. Cell projection, dendrite {ECO:0000250|UniProtKB:O35598}. Cell junction, adherens junction. Cytoplasm Note=Is localized in the plasma membrane but is also expressed in the Golgi apparatus and in clathrin-coated vesicles derived likely from the Golgi (PubMed:12475894). During long term depression, it is recruited to the cell membrane by DLG1 (PubMed:23676497). The immature form is mainly located near cytoplasmic fibrillar structures,



while the mature form is predominantly located at zonula adherens and the cell membrane (PubMed:30463011). The localization and clustering of mature ADAM10 to zonula adherens is regulated by AFDN, TSPAN33, PLEKHA7 and PDZD11 (PubMed:30463011).

Tissue Location

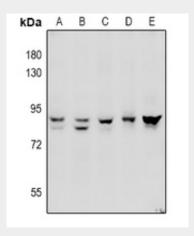
Expressed in the brain (at protein level) (PubMed:23676497). Expressed in spleen, lymph node, thymus, peripheral blood leukocyte, bone marrow, cartilage, chondrocytes and fetal liver (PubMed:11511685, PubMed:9016778).

Anti-ADAM10 Antibody - Protocols

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

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

Anti-ADAM10 Antibody - Images



Western blot analysis of ADAM10 expression in HepG2 (A), U87MG (B), A549 (C), SP20 (D), PC12 (E) whole cell lysates.

Anti-ADAM10 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ADAM10. The exact sequence is proprietary.