

Anti-ADAM10 Picoband Antibody
Catalog # ABO12859

Specification

Anti-ADAM10 Picoband Antibody - Product Information

Application	WB
Primary Accession	O14672
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for ADAM10 detection. Tested with WB, Direct ELISA in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-ADAM10 Picoband Antibody - Additional Information

Gene ID 102

Other Names

Disintegrin and metalloproteinase domain-containing protein 10, ADAM 10, 3.4.24.81, CDw156, Kuzbanian protein homolog, Mammalian disintegrin-metalloprotease, CD156c, ADAM10, KUZ, MADM

Application Details

Western blot, 0.1-0.5 µg/ml
 Direct ELISA, 0.1-0.5 µg/ml

Subcellular Localization

Cell membrane.

Tissue Specificity

Expressed in spleen, lymph node, thymus, peripheral blood leukocyte, bone marrow, cartilage, chondrocytes and fetal liver.

Contents

Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E. coli-derived human ADAM10 recombinant protein (Position: T214-D325).

Cross Reactivity

No cross reactivity with other proteins.

Storage

At -20°C; for one year. After r°Constitution, at 4°C; for one month. It°Can also be

aliquotted and stored frozen at -20°C; for a longer time. Avoid repeated freezing and thawing.

Anti-ADAM10 Picoband 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](http://www.uniprot.org/citations/11786905), PubMed:[12475894](http://www.uniprot.org/citations/12475894), PubMed:[20592283](http://www.uniprot.org/citations/20592283), PubMed:[24990881](http://www.uniprot.org/citations/24990881), PubMed:[26686862](http://www.uniprot.org/citations/26686862), PubMed:[28600292](http://www.uniprot.org/citations/28600292), PubMed:[31792032](http://www.uniprot.org/citations/31792032)). Associates with six members of the tetraspanin superfamily TspanC8 which regulate its exit from the endoplasmic reticulum and its substrate selectivity (PubMed:[26686862](http://www.uniprot.org/citations/26686862), PubMed:[28600292](http://www.uniprot.org/citations/28600292), PubMed:[31792032](http://www.uniprot.org/citations/31792032), PubMed:[34739841](http://www.uniprot.org/citations/34739841), PubMed:[37516108](http://www.uniprot.org/citations/37516108)). Cleaves the membrane-bound precursor of TNF-alpha at '76-Ala-I-Val-77' to its mature soluble form. Responsible for the proteolytical release of soluble JAM3 from endothelial cells surface (PubMed:[20592283](http://www.uniprot.org/citations/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 alpha-secretase cleavage of amyloid precursor protein (APP) (PubMed:[11786905](http://www.uniprot.org/citations/11786905), PubMed:[26686862](http://www.uniprot.org/citations/26686862), PubMed:[29224781](http://www.uniprot.org/citations/29224781), PubMed:[34739841](http://www.uniprot.org/citations/34739841)). Contributes to the normal cleavage of the cellular prion protein (PubMed:[11477090](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/12475894)). Controls also the proteolytic processing of Notch and mediates lateral inhibition during neurogenesis (By similarity). Responsible for the FasL ectodomain shedding and for the generation of the remnant ADAM10-processed FasL (FasL APL) transmembrane form (PubMed:[17557115](http://www.uniprot.org/citations/17557115)). Also cleaves the ectodomain of the integral membrane proteins CORIN and ITM2B (PubMed:[19114711](http://www.uniprot.org/citations/19114711), PubMed:[21288900](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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

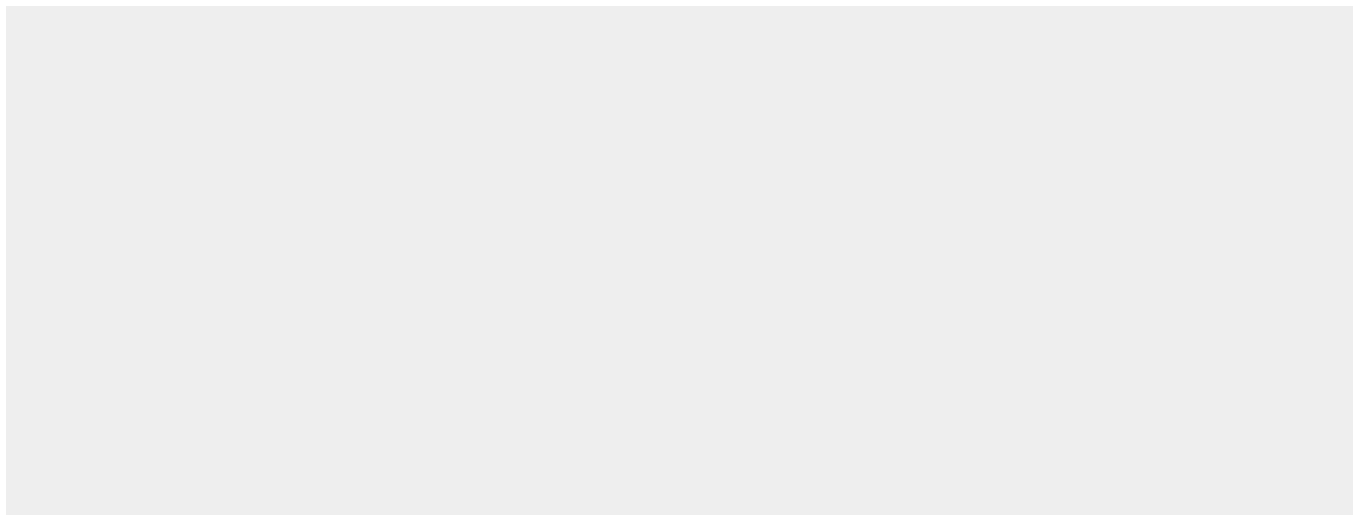
Expressed in the brain (at protein level) (PubMed:23676497). Expressed in spleen, lymph node, thymus, peripheral blood leukocyte, bone marrow, cartilage, chondrocytes and fetal liver (PubMed:11511685, PubMed:9016778).

Anti-ADAM10 Picoband Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-ADAM10 Picoband Antibody - Images



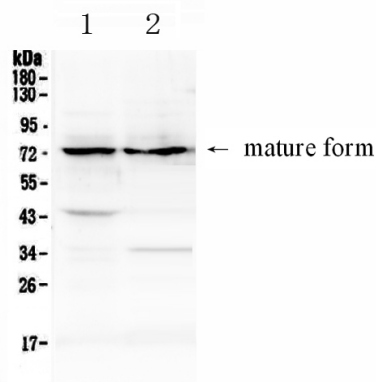


Figure 1. Western blot analysis of ADAM10 using anti-ADAM10 antibody (ABO12859).

Anti-ADAM10 Picoband Antibody - Background

ADAM10, A Disintegrin and Metalloproteinase Domain 10, is also known as AD10. ADAM10 is a member of the ADAM family and members of this family are cell surface proteins with a unique structure possessing both potential adhesion and protease function. The ADAM10 gene is mapped to chromosome 15q21.3-q23. ADAM proteins contain an N-terminal signal sequence, followed by a prodomain, a metalloprotease-like domain, a disintegrin-like domain, a cysteine-rich region, an EGF-like repeat, a transmembrane domain, and a C-terminal cytoplasmic tail. Conversion of the membrane-bound precursor to a secreted mature protein is mediated by a protease termed TNFA convertase. ADAM10 possesses TNFA convertase activity.