

ADAM10 Polyclonal Antibody
Catalog # AP63090**Specification**

ADAM10 Polyclonal Antibody - Product Information

Application	WB
Primary Accession	O14672
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal

ADAM10 Polyclonal Antibody - Additional Information**Gene ID** 102**Other Names**

ADAM10; KUZ; MADM; Disintegrin and metalloproteinase domain-containing protein 10; ADAM 10; CDw156; Kuzbanian protein homolog; Mammalian disintegrin-metalloprotease; CD antigen CD156c

Dilution

WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

ADAM10 Polyclonal 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: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:26686862, PubMed:26686862).

[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-|-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)). 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](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](http://www.uniprot.org/citations/16239146)). Regulates leukocyte transmigration as a sheddase for the adherens junction protein VE-cadherin/CDH5 in endothelial cells (PubMed: [28600292](http://www.uniprot.org/citations/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

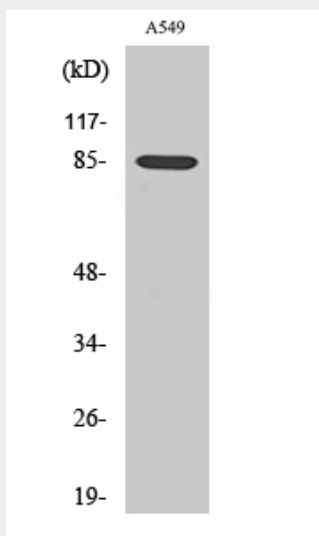
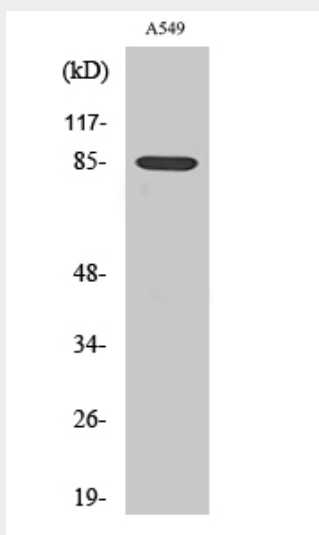
(PubMed:11511685, PubMed:9016778).

ADAM10 Polyclonal 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](#)

ADAM10 Polyclonal Antibody - Images



ADAM10 Polyclonal Antibody - Background

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 alpha-secretase cleavage of amyloid precursor protein (APP) (PubMed:26686862, PubMed:11786905, PubMed:29224781). 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). 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). Also cleaves the ectodomain of the integral membrane proteins CORIN and ITM2B (PubMed:19114711, PubMed:21288900). May regulate the EFNA5-EPHA3 signaling (PubMed:16239146).