10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-ADAM10 Rabbit Monoclonal Antibody

Catalog # ABO13875

Product Information

Application	WB, IP
Primary Accession	O14672
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-ADAM10 Rabbit Monoclonal Antibody . Tested in WB, IP applications. This antibody reacts with Human, Mouse, Rat.

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 (HGNC:188), KUZ, MADM
Calculated MW	84142
Application Details	WB 1:500-1:2000 IP 1:50
Subcellular Localization	Cell membrane; Single-pass type I membrane protein. Endomembrane system; Single-pass type I membrane protein. Is localized in the plasma membrane but is predominantly expressed in the Golgi apparatus and in released membrane vesicles derived likely from the Golgi.
Tissue Specificity	Expressed in spleen, lymph node, thymus, peripheral blood leukocyte, bone marrow, cartilage, chondrocytes and fetal liver..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: AAIC-1
Immunogen	A synthesized peptide derived from human ADAM10
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

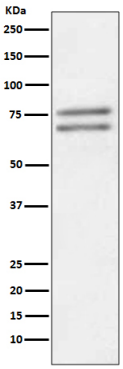
Name	ADAM10 (HGNC:188)
Synonyms	KUZ, MADM
Function	Transmembrane metalloprotease which mediates the ectodomain shedding of a myriad of transmembrane proteins, including adhesion proteins, growth factor precursors and cytokines being essential for development and tissue homeostasis (PubMed:11786905, PubMed:12475894, PubMed:20592283, PubMed:24990881, PubMed:26686862, PubMed:28600292, PubMed:31792032, 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:34739841, PubMed:37516108). Cleaves the membrane-bound precursor of TNF 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:11786905, PubMed:26686862, PubMed:29224781, PubMed:34739841, PubMed:33731436). 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).

Images



Western blot analysis of ADAM10 expression in Jurkat cell lysate.

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