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ADAM17 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1492a

Product Information

Application	WB, FC, E
Primary Accession	P78536
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB13805
Calculated MW	93021
Antigen Region	195-224

Additional Information

Gene ID	6868
Other Names	Disintegrin and metalloproteinase domain-containing protein 17, ADAM 17, Snake venom-like protease, TNF-alpha convertase, TNF-alpha-converting enzyme, CD156b, ADAM17, CSVP, TACE
Target/Specificity	This ADAM17 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 195-224 amino acids of human ADAM17.
Dilution	WB~~1:1000 FC~~1:10~50 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	ADAM17 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ADAM17 (HGNC:195)
Synonyms	CSVP, TACE

Function	Transmembrane metalloprotease which mediates the ectodomain shedding of a myriad of transmembrane proteins including adhesion proteins, growth factor precursors and cytokines important for inflammation and immunity (PubMed:24226769, PubMed:24227843, PubMed:28060820, PubMed:28923481, PubMed:38771644). Cleaves the membrane-bound precursor of TNF to its mature soluble form (PubMed:36078095, PubMed:9034191). 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 p75 TNF-receptor, interleukin 1 receptor type II, p55 TNF-receptor, transforming growth factor-alpha, L-selectin, growth hormone receptor, MUC1 and the amyloid precursor protein (PubMed:12441351). Acts as an activator of Notch pathway by mediating cleavage of Notch, generating the membrane-associated intermediate fragment called Notch extracellular truncation (NEXT) (PubMed:24226769, PubMed:38771644). Plays a role in the proteolytic processing of ACE2 (PubMed:24227843). Plays a role in hemostasis through shedding of GP1BA, the platelet glycoprotein Ib alpha chain (By similarity). Mediates the proteolytic cleavage of LAG3, leading to release the secreted form of LAG3 (By similarity). Mediates the proteolytic cleavage of IL6R, leading to the release of secreted form of IL6R (PubMed:26876177, PubMed:28060820). Mediates the proteolytic cleavage and shedding of FCGR3A upon NK cell stimulation, a mechanism that allows for increased NK cell motility and detachment from opsonized target cells. Cleaves TREM2, resulting in shedding of the TREM2 ectodomain (PubMed:28923481).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Ubiquitously expressed. Expressed at highest levels in adult heart, placenta, skeletal muscle, pancreas, spleen, thymus, prostate, testes, ovary and small intestine, and in fetal brain, lung, liver and kidney. Expressed in natural killer cells (at protein level) (PubMed:24337742). Expressed in the hair cortex, and in the inner root sheath and outer root sheath of hair follicle (PubMed:38771644)

Background

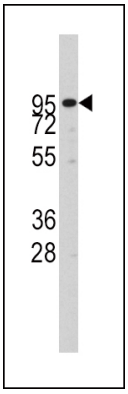
ADAM17 is a member of the ADAM (a disintegrin and metalloprotease domain) family. Members of this family are membrane-anchored proteins structurally related to snake venom disintegrins, and have been implicated in a variety of biologic processes involving cell-cell and cell-matrix interactions, including fertilization, muscle development, and neurogenesis. ADAM17 functions as a tumor necrosis factor-alpha converting enzyme; binds mitotic arrest deficient 2 protein; and also plays a prominent role in the activation of the Notch signaling pathway.

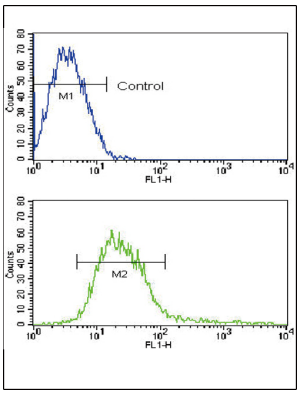
References

Tellier,E., J. Cell. Physiol. 214 (3), 687-693 (2008)
Takamune,Y., Biochem. Biophys. Res. Commun. 365 (2), 393-398 (2008)

Images

Western blot analysis of ADAM17 Antibody (N-term)in CEM cell line lysates (35ug/lane). ADAM17 (arrow) was detected using the purified Pab.





Flow cytometric analysis of CEM cells using ADAM17 Antibody (N-term) (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Notch Signaling Pathway in Pancreatobiliary Tumors
- Therapeutic potential of ADAM17 modulation in gastric cancer through regulation of the EGFR and TNF-α signalling pathways.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.