

ADAM17 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1492a

Product Information

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

Additional Information

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|---------------------------|---|
| 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

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|-----------------|--|
| 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](#)). Cleaves the membrane-bound precursor of TNF-alpha 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](#)). 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](#)).

Background

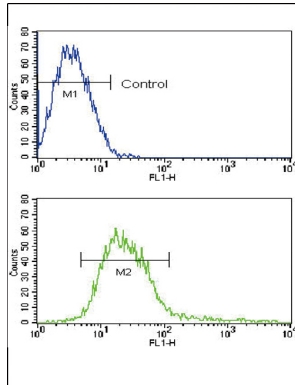
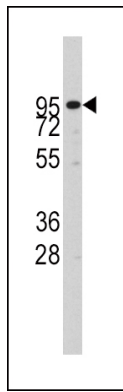
ADAM17 is a member of the ADAM (a disintegrin and metalloprotease domain) family. Members of this family are membrane-anchored proteins structurally related to snake venom disintegrins, and have been implicated in a variety of biologic processes involving cell-cell and cell-matrix interactions, including 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- \$\alpha\$ signalling pathways](#)

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