

Product name:	Cleaved-TACE (R215) Rabbit Polyclonal Antibody
Cat number:	ABN09031
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human ADAM 17. AA range:196-245
Reactivity:	Human,Rat,Mouse
Applications:	WB 1:500-1:2000,ELISA 1:10000-1:20000
Molecular Weight:	65kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

ADAM metalloproteinase domain 17 (ADAM17) Homo sapiens This gene encodes 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. The encoded preproprotein is proteolytically processed to generate the mature protease. The encoded protease functions in the ectodomain shedding of tumor necrosis factor- α , in which soluble tumor necrosis factor- α is released from the membrane-bound precursor. This protease also functions in the processing of numerous other substrates, including cell adhesion proteins, cytokine and growth factor receptors and epidermal growth factor (EGF) receptor ligands. The encoded protein also plays a prominent role in the activation of catalytic activity: Narrow endopeptidase specificity. Cleaves Pro-Leu-Ala-Gln-Ala-[Val-Arg-Ser-Ser-Ser in the membrane-bound, 26-kDa form of tumor necrosis factor α (TNF- α). Similarly cleaves other membrane-anchored, cell-surface proteins to 'shed' the extracellular domains. cofactor: Binds 1 zinc ion per subunit. domain: Must be membrane anchored to cleave the different substrates. The cytoplasmic domain is not required for this activity. Only the catalytic domain is essential to shed TNF and p75 TNFR. domain: The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme. function: Cleaves the membrane-bound precursor of TNF- α to its mature soluble form. 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- α , L-selectin, growth hormone receptor, MUC1 and the amyloid precursor protein. Also involved in the activation of Notch pathway. induction: In arthritis-affected cartilage. online information: Tumor necrosis factor α -converting enzyme entry, PTM: Phosphorylated. Stimulation by growth factor or phorbol 12-myristate 13-acetate induces phosphorylation of Ser-819 but decreases phosphorylation of Ser-791. PTM: The precursor is cleaved by a furin endopeptidase. similarity: Contains 1 disintegrin domain. similarity: Contains 1 peptidase M12B domain. subunit: Interacts with MAD2L1 and MUC1. tissue specificity: 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.