

## ADAM 10 (CT) (kuz) (TNF $\alpha$ converting enzyme). Rabbit Polyclonal Antibody Human, Mouse, Rat

KUZ; MADM

### BACKGROUND

Proinflammatory cytokine tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) contributes to a variety of inflammatory responses and programmed cell death. Notch receptor and its ligand participate in cell fate decisions during vertebrate development and are associated with several human disorders, including a T-cell lymphoma. TNF- $\alpha$ , notch and its ligand delta are all membrane-bound molecules, which are cleaved by proteases to release mature proteins or functional receptor. ADAM10, a metalloprotease-disintegrin in the family of mammalian ADAM (for a disintegrin and metalloprotease), was recently identified to cleave TNF- $\alpha$ , notch and its ligand delta (1-3). The genes encoding human, mouse, and bovine ADAM10 were recently cloned and designated ADAM 10, kuzbanian (KUZ), and MADM, respectively, (1,2,4). ADAM10 mRNA is expressed in a variety of human and bovine tissues (1,4).

### ORDERING INFORMATION

**CATALOG NUMBER**  
X1106P

**SIZE**  
100  $\mu$ g

**FORM**  
Unconjugated

**HOST/CLONE**  
Rabbit

**FORMULATION**  
Provided in phosphate buffered saline solution containing 0.02% sodium azide as a preservative

**CONCENTRATION**  
0.5 mg/ml

**ISOTYPE**  
IgG

**APPLICATIONS**  
Western Blot

### IMMUNOGEN

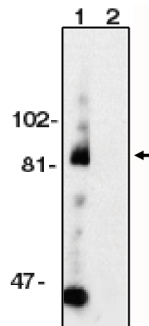
Synthetic peptide corresponding to amino acids 732 to 748 off the human ADAM10. Immungen sequence is identical in bovine and rat and differs from the mouse protein by one amino acid.

### SPECIES REACTIVITY

Human, Mouse, Rat

### Legend:

Western blot analysis using anti-ADAM10 (CT) antibody at 0.5  $\mu$ g/ml on Jurkat cell lysate for ADAM10.  
1) No blocking peptide used. 2) Blocking peptide used.



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**POSITIVE CONTROL/TISSUE EXPRESSION**

Jurkat whole cell lysate

**COMMENTS**

Detects ADAM10 by Western blot at 0.25 to 1  $\mu$ g/ml. Detects an 85 kDa band can be detected in Jurkat cell lysates which may represent precursor protein. A faint 60 kDa band is also detected in some cell lines, including Jurkat, which may be processed mature protein. Optimal concentration should be evaluated by serial dilutions.

**SHIP CONDITIONS**

Ship at ambient temperature, freeze upon arrival

**STORAGE CUSTOMER**

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

**STABILITY**

Products are stable for one year from purchase when stored properly

**REFERENCES**

1. Rosendahl, M.S., et al., "Identification and characterization of a pro-tumor necrosis factor-alpha-processing enzyme from the ADAM family of zinc metalloproteases." J. Biol. Chem. 1997, 272, 24588-24593
2. Pan, D. & Rubin, G.M., "Kuzbanian controls proteolytic processing of Notch and mediates lateral inhibition during Drosophila and vertebrate neurogenesis." Cell 1997, 90, 271-280
3. Qi, H., et al., "Processing of the notch ligand delta by the metalloprotease Kuzbanian." Science 1999, 283, 91-94
4. Howard, L., et al., "Molecular cloning of MADM: a catalytically active mammalian disintegrin-metalloprotease expressed in various cell types." Biochem. J. 1996, 317, 45-50

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