

Product Information

Anti-ADAM-9, Propeptide Domain

Developed in Rabbit
Affinity Isolated Antibody

Product Number **A5101**

Product Description

Anti-ADAM-9, Propeptide Domain is developed in rabbit using a synthetic peptide corresponding to the propeptide domain of human ADAM9 (A Disintegrin And Metalloproteinase-9) as immunogen. Affinity isolated antigen specific antibody is obtained from rabbit anti-ADAM-9 antiserum by immuno-specific purification which removes essentially all rabbit serum proteins, including immunoglobulins, which do not specifically bind to the peptide.

Anti-ADAM-9, Propeptide Domain may be used for the detection and localization of human ADAM9 and does not react with other ADAMs. By immunoblotting against the reduced protein, the antibody recognizes bands at 116 kDa (minor band), 84 kDa (major band), and breakdown products at 50 kDa and 34 kDa in conditioned media or cell lysates.

ADAM9, also known as MDC9 and Meltrin- γ , is a member of the metalloproteinase family containing disintegrin-like domains (ADAMs). It was first described in muscle cells as a protein with homology to the fertilins (ADAMs 1, 2). Initial observations indicated a role for ADAM9 in myoblast fusion, similar to sperm-egg fusion aided by ADAMs 1 and 2. Later work describe ADAM9 in the lung, heart, brain, kidney, and a wide range of tissues, and examined the ability of ADAM9 to activate TNF- α (tumor necrosis factor α) and HB-EGF, and act as an adhesion molecule with integrin $\alpha v \beta 5$ and $\alpha 6 \beta 1$.^{1, 2}

The cytoplasmic domain of ADAM9 contains SH3 ligand domains,³ which are thought to interact with PKC- δ , suggesting specific regulation routes for ADAM9. A form of ADAM9 in myeloma cells has truncated N- and C-terminal ends, and a 13 amino acid insert in the cysteine-rich domain. ADAM9 contains the canonical HExxHxxxxxH zinc metalloproteinase motif, and has been shown to be proteolytically active. The full length human ADAM9 (819 amino acids) contains a Type-I transmembrane domain. The predicted mass of human ADAM9 is 90.5 kDa, but due to glycosylation and cysteine-rich regions, the protein migrates as bands of 114 kDa (unprocessed) and 84 kDa (processed).

Reagent

Anti-ADAM-9, Propeptide Domain is supplied in phosphate buffered saline containing 50% glycerol and 0.05% sodium azide. The protein concentration is approximately 1 mg/ml.

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to six months. For extended storage, the solution may be stored -20 °C. Do not store below -22 °C. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Product Profile

A minimum working antibody dilution of 1:1,000 is determined by immunoblotting a tissue cell lysate with an alkaline phosphatase conjugated secondary antibody and BCIP/NBT as the substrate. A starting dilution of 1:5,000 of the antibody is recommended for chemiluminescent substrates

Note: Higher antibody dilutions may be necessary for non-human samples. EDTA/EGTA treatment of tissues or lysates is required to see latent zymogen.

In order to obtain the best results and assay sensitivity in various techniques and preparations we recommend determining optimum working dilutions by titration.

References

1. Zhou, M., et al., *Biochem. Biophys. Res. Commun.*, **280**, 574-580 (2001).
2. Nath, D., et al., *J. Cell Sci.*, **113**, 2319-2328 (2000).
3. Weskamp, G., et al., *J. cell Biol.*, **132**, 717-726 (1996).

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