

Product Information

Anti-ADAM-15, Cytoplasmic Domain

Developed in Rabbit
Affinity Isolated Antibody

Product Number **A 3851**

Product Description

Anti-ADAM-15, Cytoplasmic Domain is developed in rabbit using a synthetic peptide corresponding to the cytoplasmic domain of human ADAM15 (A Disintegrin And Metalloproteinase-15) as immunogen. Affinity isolated antigen specific antibody is obtained from rabbit anti-ADAM-15 antiserum by immuno-specific purification which removes essentially all rabbit serum proteins, including immunoglobulins, which do not specifically bind to the peptide.

Anti-ADAM-15, Cytoplasmic Domain may be used for the detection and localization of human ADAM15. By immunoblotting against the reduced protein, the antibody recognizes bands of 110 kDa (zymogen) and 90 kDa (furin-processed form) of ADAM15. A series of cleaved products at 55 kDa and 40 kDa can also be seen in reduced immunoblots of cell lysates.

ADAM15, also known as Metargidin and MDC15, is a member of the ADAM (a disintegrin and metallo-protease-like domain) family. It was first described in mammary epithelial carcinoma cells as a membrane-anchored Metalloprotease-Disintegrin with RGD sequence (MetaRGiDin). Mouse ADAM15 does not contain the RGD sequence; instead the mouse ADAM15 has a TDD in its place. Like ADAM9 and ADAM12, there are SH3 ligand domains in the cytoplasmic portion of ADAM15, suggesting regulation routes for ADAM15 via Src and Src tyrosine kinase.¹ ADAM15 contains the canonical HExxHxxxxxH zinc metalloproteinase motif, and has been shown to be proteolytically active. Full length ADAM15, 814 amino acids, has a predicted mass of 85 kDa, but due to glycosylation and cysteine-rich regions, the reduced protein migrates to 110 kDa (unprocessed) and 84 kDa (processed).

ADAM15 is widely expressed in normal tissues and tumor cell lines, and is expressed on the cell surface, anchored by the transmembrane domain. It is also elevated in osteoarthritic and rheumatoid synovial tissues,² suggesting an inflammatory role. ADAM15 may also act as a cell-attachment molecule by binding the integrins $\alpha v \beta 3$ and $\alpha 5 \beta 1$ through the cysteine-rich domain and/or RGD sequence.³

Reagent

Anti-ADAM-15, Cytoplasmic 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 tissue or cell lysates using 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.

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. Poghosyan, Z., et al., J. Biol. Chem., **277**, 4999-5007 (2002).
2. Bohm, B.B., et al., Arthritis Rheum., **44**, 46-54 (2001).
3. Nath, D., et al., J. Cell Sci., **112**, 579-587 (1999).

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