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ProductInformation

Anti-ADAM-8, Propeptide Domain
Developed in Rabbit
Affinity Isolated Antibody

Product Number **A 2351**

Product Description

Anti-ADAM-8, Propeptide Domain is developed in rabbit using a synthetic peptide corresponding to the propeptide domain of the aminoterminal region (preceding the cysteine switch) of human ADAM-8 (A Disintegrin And Metalloproteinase-8) as immunogen. Affinity isolated antigen specific antibody is obtained from rabbit anti-ADAM-8 antiserum by immuno-specific purification which removes essentially all rabbit serum proteins, including immunoglobulins, which do not specifically bind to the peptide.

Anti-ADAM-8, Propeptide Domain may be used for the detection and localization of human, porcine, and rat ADAM8 and does not react with other ADAMs. By immunoblotting against the reduced protein, the antibody recognizes 52 kDa and 70 kDa bands in conditioned media or cell lysates. In culture media, the 52 kDa form is predominant.

ADAM8, a transmembrane glycoprotein, also known as MS2 and CD156, is a member of the metalloproteinase family containing disintegrin-like domains (ADAMs). It was first described as a monocyte-specific protein originally cloned from mouse macrophages.[1] Human ADAM8, mapping to the human chromosome 10q26.3, was isolated from cDNA libraries of the human macrophage cell line THP-1 and from human granulocytes.[2] The name CD156 was given to indicate that ADAM8 is a leukocyte differentiation antigen that may play an important role in the immune system. ADAM8 (826 amino acids) contains a Type-I trans-membrane domain and a canonical HExxHxxxxxH zinc metalloproteinase motif, and has been shown to be proteolytically active.

ADAM8 is up-regulated in the central nervous system following neurogeneration and activation of glia cells, astrocytes, and microglia, suggesting that it may have a role in neuron-glia interactions.[3] It has been shown to be produced by bone marrow cultures stimulated by vitamin-D.[4] ADAM8 stimulates osteoclasts, suggesting a role in cell adhesion and cell fusion.[4, 5]

Although ADAM8 was reported to be monocyte-specific, it is expressed in a wide range of cells in culture. Studies of recombinant ADAM8 show that little or none is expressed on the cell surface; the majority is shed into the cell culture media as a 70 kDa form, similar to ADAM8 secreted into media of bone marrow cells.

Reagent

Anti-ADAM-8, 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

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5. Scholmann, U., et al., J. Biol. Chem., **277**, 48210-48219 (2002).
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