

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ADAM12 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) ADAM8, rhADAM19, and recombinant mouse ADAM33 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human ADAM12 Arg29-Ser513 Accession # AAC08702
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

ADAM12, also known as meltrin-α, is a member of the ADAM family with metalloprotease activity (1). It consists of a propeptide, metalloproteinase, disintegrin, cysteine-rich, and EGF-like domains, a transmembrane segment, and a cytoplasmic tail with SH3 binding motifs. Human ADAM12 exists in two alternatively spliced forms: the prototype transmembrane form and a shorter secreted form lacking the transmembrane domain and the cytoplasmic tail. The secreted form has a 34 amino acid substitution in place of the transmembrane and cytoplasmic regions. In mouse, only the transmembrane form has been observed. The propeptide, which is cleaved in the Golgi by furin-like proprotein convertases, is retained in a noncovalent complex after ADAM12 secretion (2). Thus, the pro domain may function as an inhibitor of the proteolytic activity or play another unknown function. The known physiological substrates of ADAM12 are HBEGF in the heart (3) and IGFBP-3 and -5 in placental serum (4). Its proteolytic activity is inhibited by the tissue inhibitor of metalloproteinase-3 (recombinant human TIMP-3, Catalog # 973-TM) and α-2-macroglobulin. It also mediates cell-cell adhesion by interacting with integrins and syndecans as well as with additional unidentified molecules (4). ADAM12 may be a promising marker in prenatal diagnostics and breast cancer (5, 6). The recombinant ADAM12 contains the pro, metalloproteinase, and disintegrin domains. In addition to TIMP-3, the activity can also be inhibited by 5 mM 1,10-phenanthroline.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.