

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ADAMTS5 in direct ELISA.
Source	Monoclonal Mouse IgG ₁ Clone # 362821
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human ADAMTS5 Ser262-Pro622 Accession # Q9UNA0
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.

ELISA 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

ADAMTS5 (a disintegrin and metalloproteinase with thrombospondin motifs 5), also known as Aggrecanase-2 and ADAMTS11, is a member of the family of secreted zinc proteases with a multi-domain structure (1, 2). The protein precursors consist of signal peptide and following domains: pro, catalytic, disintegrin-like, TS type 1 motif, cysteine-rich, spacer and a variable number of TS type 1 motifs. ADAMTS5 is an active protease effectively cleaving α2-Macroglobulin (3), Aggrecan (4), and Brevican (5), and is inhibited by TIMP-3 with inhibition constants in the subnanomolar range (6). Based on the murine model studies (7, 8), this protease may be a key enzyme in the degradation of cartilage leading to osteoarthritis and rheumatoid arthritis. The purified recombinant human (rh) ADAMTS5 starts at the N-terminus of the catalytic domain and ends at the C-terminus of the TSP-1 domain. The amino acid sequence of rhADAMTS5 is 98%, 97%, and 96% identical to that of canine, bovine, and mouse/rat. The aggrecanase activity can be inhibited by 5 mM 1,10-phenanthroline and rhTIMP-3 (R&D Systems, Catalog # 973-TM).

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.