

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Thrombospondin-1 in ELISAs and Western blots. In sandwich immunoassays and Western blots, no cross-reactivity with recombinant human (rh) Thrombospondin-2 or rhThrombospondin-4 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 301221
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Thrombospondin-1 Asn19-Pro1170 Accession # CAA32889
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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
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

Thrombospondin-1 (TSP-1) is a 150-180 kDa member of the thrombospondin family of extracellular matrix proteins. Human TSP-1 is synthesized as an 1170 amino acid (aa) precursor that contains an 18 aa signal sequence and 1152 aa mature molecule. The mature molecule has been described as containing three distinct regions that create the shape of a dumbbell. There is an initial, 140 aa N-terminal laminin G-like globular region that binds heparin (aa 19-258). This is followed by an extended, central collagen-binding region that contains one type C von Willebrand factor domain, plus three TSP type I and three TSP type II (or EGF-like) domains (aa 259-712). The C-terminus (aa 713-1170) appears as a large globule with two halves; one calcium-binding region (aa 713-950) with seven Asp-rich TSP type III domains, and one terminal region (aa 951-1170) with TSP-unique motifs (1). This C-terminal region is believed to mediate CD47 and cell binding (2-5). The TSP type I repeats have multiple functions. They bind to type V collagen, laminin, fibronectin and CD36. They also contain a recognition site for C-mannosylation on Trp. Finally, a type I KRK motif induces the release of mature TGF-β from LAP. This is an effect not found in TSP-2. The function of the type II repeats is unclear. TSP-1 is secreted as a disulfide-linked 450 kDa homotrimer. The cysteines responsible lie just N-terminal to the first type I TSP repeat. Mature human TSP-1 is 61% aa identical to human TSP-2. It is also 95%, 97% and 95% aa identical to mouse, dog and rat TSP-1, respectively.

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.