Human Thrombospondin-1 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 301221

Catalog Number: FAB3074G

100 µg

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) Thrombospindin-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 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 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 charter 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 intital, 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 KRFK motif induces the release of mature TGF-b from LAP. This is an effect not found in TSP-2. The function of the type II repeats in 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

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