

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Thrombospondin-1 in direct ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 899631R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Thrombospondin-1 Asn19-Ser1171 Accession # P35441
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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

Thrombospondin-1 (TSP-1) is a 150-180 kDa calcium-sensitive protein that is secreted as a disulfide-linked homotrimer. Within the Thrombospondin family, TSP-2 is also homotrimeric, while TSP-3, -4, and -5/COMP are pentameric. TSP-1 regulates a wide range of cellular functions including their interactions with other cells and with the extracellular matrix (ECM). TSP-1 contains an N-terminal Laminin G-like globular domain, an extended central region with one vWF-C domain, 3 TSP type 1 repeats, 3 EGF-like domains, and 8 TSP type-3 repeats, and a globular C-terminal lectin domain. Distinct regions of TSP-1 have been associated with binding to particular ECM or cellular molecules (1, 2). Mature mouse TSP-1 shares 95% and 99% amino acid sequence identity with human and rat TSP-1, respectively. TSP-1 counteracts the angiogenic, hypotensive, and anti-thrombotic effects of nitric oxide (NO) (3). It binds and neutralizes VEGF, blocks VEGF R2 signaling on vascular endothelial cells (EC), and destabilizes adhesive contacts between EC (4-6). TSP-1's actions on vascular smooth muscle cells support arterial tone and blood pressure in the presence of vasodilatory stimulation (7). It is released from activated platelets and enhances platelet aggregation and adhesion (8). TSP-1 also plays an important role in wound repair and tissue fibrosis by binding latent TGF-beta and inducing release of the active cytokine from the latency associated peptide (LAP) (9, 10). TSP-1 dampens adaptive immune responses by inducing the differentiation of regulatory T cells and inhibiting TCR signaling (11, 12). In the nervous system, it promotes excitatory synapse formation (13, 14) and supports the integration of neural progenitor cells into the olfactory bulb (15). In addition, TSP-1 is released by apoptotic cells and promotes macrophage-mediated debris clearance (16).

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.