

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse THSD1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 10% cross-reactivity with recombinant human THSD1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse THSD1 Glu25-Asn412 Accession # Q9JL61
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 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.

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

Mouse THSD1 (Thrombospondin type-1 domain-containing protein 1), also known as Transmembrane molecule with thrombospondin module (Tmtsp), is a 95 kDa, type I transmembrane protein (1). It is synthesized as a precursor that is 851 amino acids (aa) in length, and has a 24 aa signal sequence, a 388 aa extracellular region, a 21 aa transmembrane region, and a 418 aa cytoplasmic region. The extracellular region contains six potential N-linked glycosylation sites and the thrombospondin type-1 (TSP1) domain, which is implicated in cell adhesion and migration (1). Also present in the molecule are 9 PKC-phosphorylation sites, 3 Ig-like domains, and a tyrosine-phosphorylation site by its C-terminus (1). Mouse THSD1 shares 78% aa sequence identity with human THSD1. THSD1 is highly expressed in hematopoietic stem cells (HSCs) and progenitor cells, including CD34^{low}Kit⁺Sca-1⁺Lin⁻ HSCs, CD34⁺Kit⁺Sca-1⁺Lin⁻ and Lin⁻ progenitor cells, and to a lesser degree in thymic CD4⁺CD8⁺ cells (1). Expression gradually decreases during T cell differentiation (1). In addition, THSD1 is widely expressed on endothelial cells, with highest expression in the lung (1). THSD1's ligand and function are unknown, but it is postulated that THSD1 may be involved in the regulation of vasculogenesis and/or angiogenesis through its interaction with its specific ligand (1). THSD1 may function in primitive hematopoietic cells in the bone marrow niche, and through its TSP1 and Ig-like domains, it may play a role in HSC homing to the niche following cell-to-cell contact to maintain hematopoietic stem cell quiescence (1).

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.