

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 # Q9JH61
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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).

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