10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Thrombospondin Antibody (N-Term)

Peptide-affinity purified goat antibody
Catalog # AF2908a

Specification

Thrombospondin Antibody (N-Term) - Product Information

Application	**WB**
Primary Accession	P07996
Other Accession	NP_003237.2, 7057
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**129383**

Thrombospondin Antibody (N-Term) - Additional Information

Gene ID 7057

Other Names
Thrombospondin-1, THBS1, TSP, TSP1

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Thrombospondin Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Thrombospondin Antibody (N-Term) - Protein Information

Name THBS1 (HGNC:11785)

Synonyms TSP, TSP1

Function
Adhesive glycoprotein that mediates cell-to-cell and cell-to- matrix interactions (PubMed:2430973, PubMed:6489349, PubMed:15014436, PubMed:18285447).

Multifunctional, involved in inflammation, angiogenesis, wound healing, reactive oxygen species (ROS) signaling, nitrous oxide (NO) signaling, apoptosis, senescence, aging, cellular self-renewal, stemness, and cardiovascular and metabolic homeostasis (PubMed:14568985, PubMed:1371676, PubMed:10613822, PubMed:11134179, PubMed:24511121, PubMed:29042481, PubMed:32679764). Negatively modulates dendritic cell activation and cytokine release, as part of an autocrine feedback loop, contributing to the resolution of inflammation and immune homeostasis (PubMed:14568985). Ligand for receptor CD47 (PubMed:8550562, PubMed:19004835). Modulates nitrous oxide (NO) signaling via CD47, hence playing a role as a pressor agent, supporting blood pressure (By similarity). Plays a role in endothelial cell senescence, acting via CD47, by increasing the abundance and activation of NADPH oxidase NOX1, and so generating excess ROS (PubMed:29042481). Inhibits stem cell self-renewal, acting via CD47 signaling, probably by regulation of the stem cell transcription factors POU5F1/OCT4, SOX2, MYC/c-Myc and KLF4 (By similarity). Negatively modulates wound healing, acting via CD47 (By similarity). Ligand for receptor CD36 (PubMed:1371676, PubMed:10613822, PubMed:11134179). Involved in inducing apoptosis in podocytes in response to elevated free fatty acids, acting via CD36 (By similarity). Plays a role in suppressing angiogenesis, acting, depending on context, via CD36 or CD47 (PubMed:1371676, PubMed:10613822, PubMed:32679764, PubMed:11134179). Promotes cellular senescence in a TP53-CDKN1A-RB1 signaling-dependent manner (PubMed:29042481). Ligand for immunoglobulin-like cell surface receptor SIRPA (PubMed:24511121). Involved in ROS signaling in non- phagocytic cells, stimulating NADPH oxidase-derived ROS production, acting via interaction with SIRPA (PubMed:24511121). Plays a role in metabolic dysfunction in diet-induced obesity, perhaps acting by exacerbating adipose inflammatory activity; its effects may be mediated, at least in part, through enhanced adipocyte proliferation (By similarity). Plays a role in ER stress response, via its interaction with the activating transcription factor 6 alpha (ATF6) which produces adaptive ER stress response factors (By similarity). May be involved in age-related conditions, including metabolic dysregulation, during normal aging (PubMed:29042481, PubMed:32679764).

Cellular Location

Secreted. Cell surface. Secreted, extracellular space, extracellular matrix. Endoplasmic reticulum {ECO:0000250|UniProtKB:P35441}. Sarcoplasmic reticulum {ECO:0000250|UniProtKB:P35441}. Note=Secreted by thrombin-activated platelets and binds to the cell surface in the presence of extracellular Ca(2+) (PubMed:6777381, PubMed:101549). Incorporated into the extracellular matrix (ECM) of fibroblasts (PubMed:6341993). The C- terminal region in trimeric form is required for retention in the ECM (PubMed:18285447). Also detected in the endoplasmic reticulum and sarcoplasmic reticulum where it plays a role in the ER stress response (By similarity). {ECO:0000250|UniProtKB:P35441, ECO:0000269|PubMed:6341993,

ECO:0000269|PubMed:6777381}

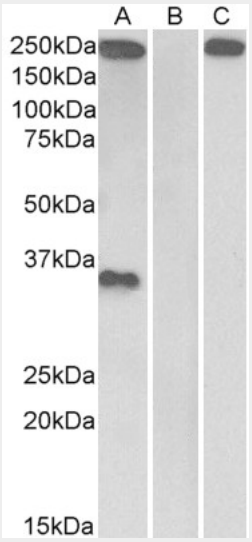
Tissue Location
Expressed by platelets (at protein level) (PubMed:101549). Expressed by monocyte-derived immature and mature dendritic cells (at protein level) (PubMed:14568985)

Thrombospondin Antibody (N-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Thrombospondin Antibody (N-Term) - Images



HEK293 lysate (10ug protein in RIPA buffer) overexpressing Human THBS1 with C-terminal MYC tag probed with AF2908a (0.1ug/ml) in Lane A and probed with anti-MYC Tag (1/1000) in lane C. Mock-transfected HEK293 probed with AF2908a (0.1ug/ml) in Lane B. Primary incubations were for 1 hour. Detected by chemiluminescence.

Thrombospondin Antibody (N-Term) - References

The nonsteroidal anti-inflammatory drug NS398 reactivates SPARC expression via promoter demethylation to attenuate invasiveness of lung cancer cells. Pan MR, Chang HC, Chuang LY, Hung WC. Exp. Biol. Med. (Maywood) 2008 Apr 233 (4): 456-62. PMID: 18367635