

THBS1 / Thrombospondin-1 Antibody (N-Terminus)
Goat Polyclonal Antibody
Catalog # ALS13201

Specification

THBS1 / Thrombospondin-1 Antibody (N-Terminus) - Product Information

Application	IHC
Primary Accession	P07996
Reactivity	Human, Monkey, Pig, Horse, Bovine
Host	Goat
Clonality	Polyclonal
Calculated MW	129kDa KDa

THBS1 / Thrombospondin-1 Antibody (N-Terminus) - Additional Information

Gene ID 7057

Other Names

Thrombospondin-1, THBS1, TSP, TSP1

Target/Specificity

Human THBS1 / Thrombospondin.

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

THBS1 / Thrombospondin-1 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

THBS1 / Thrombospondin-1 Antibody (N-Terminus) - Protein Information

Name THBS1 ([HGNC:11785](#))

Synonyms TSP, TSP1

Function

Adhesive glycoprotein that mediates cell-to-cell and cell-to-matrix interactions (PubMed: [15014436](http://www.uniprot.org/citations/15014436), PubMed: [18285447](http://www.uniprot.org/citations/18285447), PubMed: [2430973](http://www.uniprot.org/citations/2430973), PubMed: [6489349](http://www.uniprot.org/citations/6489349)). 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: [10613822](http://www.uniprot.org/citations/10613822), PubMed: [11134179](http://www.uniprot.org/citations/11134179), PubMed: [1371676](http://www.uniprot.org/citations/1371676), PubMed: [1371676](#)).

<http://www.uniprot.org/citations/14568985> target="_blank">14568985, 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:19004835, PubMed:8550562). 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:10613822, PubMed:11134179, PubMed:1371676). 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:10613822, PubMed:11134179, PubMed:1371676, PubMed:32679764). 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:101549, PubMed:6777381). 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)

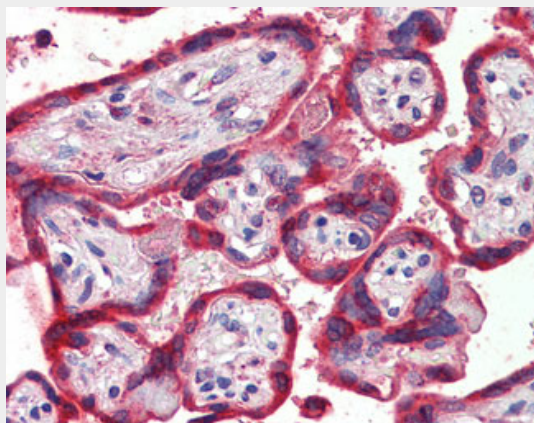
Volume
50 µl

THBS1 / Thrombospondin-1 Antibody (N-Terminus) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

THBS1 / Thrombospondin-1 Antibody (N-Terminus) - Images



Anti-THBS1 / Thrombospondin antibody IHC of human placenta.

THBS1 / Thrombospondin-1 Antibody (N-Terminus) - Background

Adhesive glycoprotein that mediates cell-to-cell and cell-to-matrix interactions. Binds heparin. May play a role in dentinogenesis and/or maintenance of dentin and dental pulp (By similarity). Ligand for CD36 mediating antiangiogenic properties. 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).

THBS1 / Thrombospondin-1 Antibody (N-Terminus) - References

- Lawler J., et al. *J. Cell Biol.* 103:1635-1648(1986).
Hennessy S.W., et al. *J. Cell Biol.* 108:729-736(1989).
Ota T., et al. *Nat. Genet.* 36:40-45(2004).
Totoki Y., et al. Submitted (MAR-2005) to the EMBL/GenBank/DDBJ databases.
Zody M.C., et al. *Nature* 440:671-675(2006).