

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

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

Application	IHC
Primary Accession	<a href="#">P07996</a>
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</a>, PubMed:<a href="http://www.uniprot.org/citations/24511121" target="\_blank">24511121</a>, PubMed:<a href="http://www.uniprot.org/citations/29042481" target="\_blank">29042481</a>, PubMed:<a href="http://www.uniprot.org/citations/32679764" target="\_blank">32679764</a>). 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:<a href="http://www.uniprot.org/citations/14568985" target="\_blank">14568985</a>). Ligand for receptor CD47 (PubMed:<a href="http://www.uniprot.org/citations/19004835" target="\_blank">19004835</a>, PubMed:<a href="http://www.uniprot.org/citations/8550562" target="\_blank">8550562</a>). 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:<a href="http://www.uniprot.org/citations/29042481" target="\_blank">29042481</a>). 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:<a href="http://www.uniprot.org/citations/10613822" target="\_blank">10613822</a>, PubMed:<a href="http://www.uniprot.org/citations/11134179" target="\_blank">11134179</a>, PubMed:<a href="http://www.uniprot.org/citations/1371676" target="\_blank">1371676</a>). 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:<a href="http://www.uniprot.org/citations/10613822" target="\_blank">10613822</a>, PubMed:<a href="http://www.uniprot.org/citations/11134179" target="\_blank">11134179</a>, PubMed:<a href="http://www.uniprot.org/citations/1371676" target="\_blank">1371676</a>, PubMed:<a href="http://www.uniprot.org/citations/32679764" target="\_blank">32679764</a>). Promotes cellular senescence in a TP53-CDKN1A-RB1 signaling-dependent manner (PubMed:<a href="http://www.uniprot.org/citations/29042481" target="\_blank">29042481</a>). Ligand for immunoglobulin-like cell surface receptor SIRPA (PubMed:<a href="http://www.uniprot.org/citations/24511121" target="\_blank">24511121</a>). Involved in ROS signaling in non-phagocytic cells, stimulating NADPH oxidase-derived ROS production, acting via interaction with SIRPA (PubMed:<a href="http://www.uniprot.org/citations/24511121" target="\_blank">24511121</a>). 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:<a href="http://www.uniprot.org/citations/29042481" target="\_blank">29042481</a>, PubMed:<a href="http://www.uniprot.org/citations/32679764" target="\_blank">32679764</a>).

### 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)

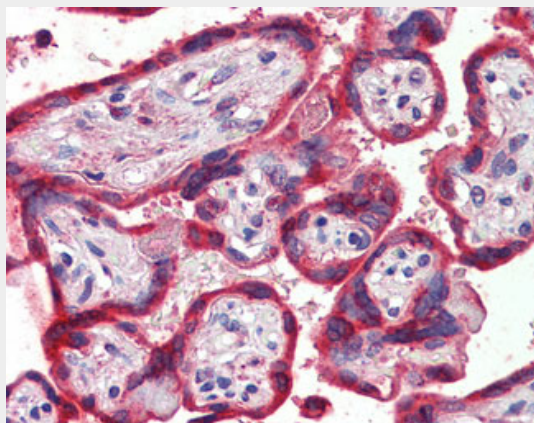
**Volume**  
50 µl

### **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).