

THBS1 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8522A**Specification**

THBS1 Antibody (N-term) - Product Information

Application	WB, FC, IF, IHC-P,E
Primary Accession	P07996
Other Accession	Q28178
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	181-210

THBS1 Antibody (N-term) - Additional Information**Gene ID** 7057**Other Names**

Thrombospondin-1, THBS1, TSP, TSP1

Target/Specificity

This THBS1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 181-210 amino acids from the N-terminal region of human THBS1.

Dilution

WB~~1:1000
FC~~1:10~50
IF~~1:10~50
IHC-P~~1:10~50
E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

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

Precautions

THBS1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

THBS1 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:[15014436](#), PubMed:[18285447](#), PubMed:[2430973](#), PubMed:[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](#), PubMed:[11134179](#), PubMed:[1371676](#), PubMed:[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)

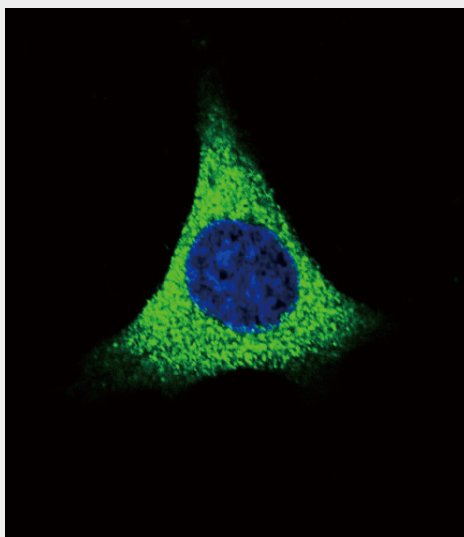
THBS1 Antibody (N-term) - Protocols

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

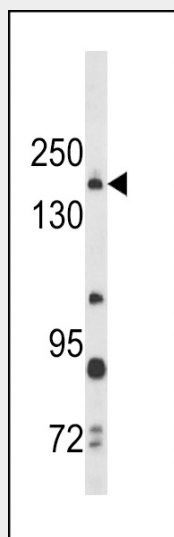
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

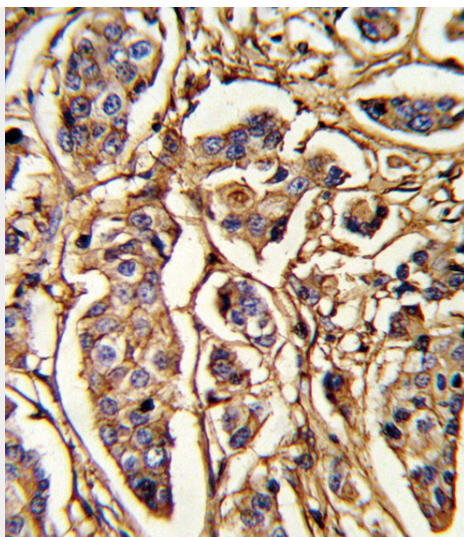
THBS1 Antibody (N-term) - Images



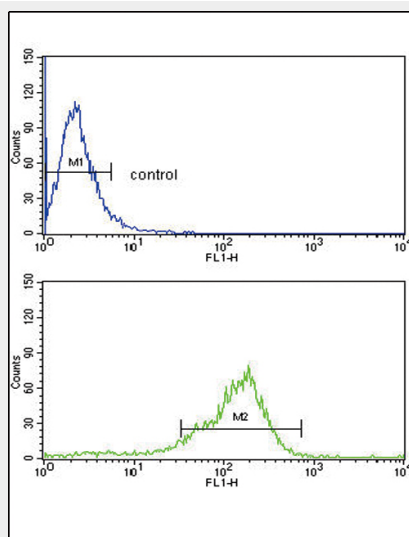
Confocal immunofluorescent analysis of THBS1 Antibody (N-term) (Cat#AP8522a) with MDA-MB231 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Western blot analysis of THBS1 Antibody (N-term) (Cat. #AP8522a) in MDA-MB231 cell line lysates (35ug/lane). THBS1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human breast carcinoma reacted with THBS1 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



THBS1 Antibody (N-term) (Cat. #AP8522a) flow cytometric analysis of MDA-MB231 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

THBS1 Antibody (N-term) - Background

THBS1 is a subunit of a disulfide-linked homotrimeric protein. This protein is an adhesive glycoprotein that mediates cell-to-cell and cell-to-matrix interactions. This protein can bind to fibrinogen, fibronectin, laminin, type V collagen and integrins alpha-V/beta-1. This protein has been shown to play roles in platelet aggregation, angiogenesis, and tumorigenesis.

THBS1 Antibody (N-term) - References

Hofsteenge, J., et al., J. Biol. Chem. 276 (9), 6485-6498 (2001)
Roszmusz, E., et al., Biochem. Biophys. Res. Commun. 296 (1), 156-160 (2002)

THBS1 Antibody (N-term) - Citations

- [Inhibition of Transforming Growth Factor \$\beta\$ Activation Diminishes Tumor Progression and](#)

[Osteolytic Bone Disease in Mouse Models of Multiple Myeloma.](#)

- [Anti-invasive activity of histone deacetylase inhibitors via the induction of Egr-1 and the modulation of tight junction-related proteins in human hepatocarcinoma cells.](#)