

### **THBS1 Antibody (C-Term)**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP22285b

### **Specification**

## THBS1 Antibody (C-Term) - Product Information

**Application** WB,E **Primary Accession** P07996 Other Accession 028178 Reactivity Human Predicted **Bovine** Host Rabbit Clonality polyclonal Isotype Rabbit IgG Calculated MW 129383

### THBS1 Antibody (C-Term) - Additional Information

#### **Gene ID 7057**

#### **Other Names**

Thrombospondin-1, THBS1, TSP, TSP1

#### Target/Specificity

This THBS1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 820-854 amino acids from human THBS1.

# **Dilution**

WB~~1:2000

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 (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

### THBS1 Antibody (C-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: <u>1371676</u>, PubMed: <u>14568985</u>, PubMed: <u>24511121</u>, PubMed: <u>29042481</u>, PubMed: <u>32679764</u>). 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 (C-Term) - Protocols**

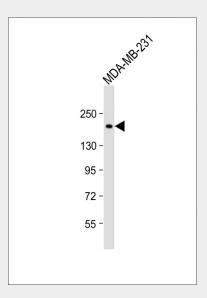
Provided below are standard protocols that you may find useful for product applications.

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



### • Cell Culture

#### THBS1 Antibody (C-Term) - Images



Anti-THBS1 Antibody (C-Term) at 1:2000 dilution + MDA-MB-231 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 129 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

## THBS1 Antibody (C-Term) - 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 Antibody (C-Term) - 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).