Anti-Thrombospondin 1 Antibody [PSH02-97] HA721916

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Cell, IF-Tissue, FC
Molecular Wt:	Predicted band size: 129 kDa
Clone number:	PSH02-97

Description: Thrombospondin 1, abbreviated as THBS1, is a protein that in humans is encoded by the THBS1 gene. Thrombospondin 1 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, collagens types V and VII and integrins alpha-V/beta-1. This protein has been shown to play roles in platelet aggregation, angiogenesis, and tumorigenesis.

Immunogen: Synthetic peptide within human Thrombospondin 1 aa 500-1,170 / 1,170.

Positive control: MEF cell lysate, Mouse spleen tissue lysate, HUVEC cell lysate, Rat spleen tissue lysate, NIH/3T3, HUVEC, human bone marrow tissue, human spleen tissue, mouse spleen tissue, rat spleen tissue.

Subcellular location: Endoplasmic reticulum. Sarcoplasmic reticulum.

Database links: SwissProt: P07996 Human | Q8CGB2 Mouse
Entrez Gene: 445442 Rat

Recommended Dilutions:

WB	1:1,000-1:2,000
IHC-P	1:2,000-1:8,000
IF-Cell	1:100
IF-Tissue	1:500
FC	1:1,000

Storage Buffer: PBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

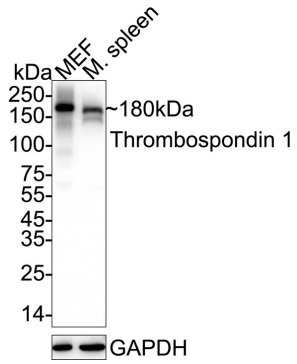

Fig1: Western blot analysis of Thrombospondin 1 on different lysates with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/1,000 dilution.

Lane 1: MEF cell lysate
Lane 2: Mouse spleen tissue lysate

Lysates/proteins at 40 µg/Lane.

Predicted band size: 129 kDa
Observed band size: 180 kDa

Exposure time: 10 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721916) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

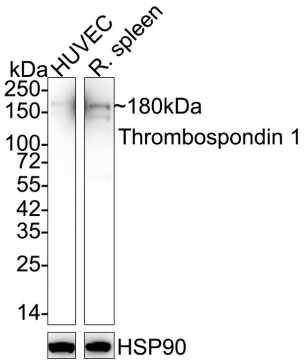

Fig2: Western blot analysis of Thrombospondin 1 on different lysates with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/2,000 dilution.

Lane 1: HUVEC cell lysate
Lane 2: Rat spleen tissue lysate

Lysates/proteins at 40 µg/Lane.

Predicted band size: 129 kDa
Observed band size: 180 kDa

Exposure time: 1 minutes 2 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721916) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

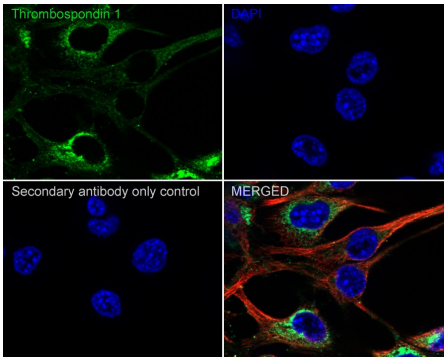

Fig3: Immunocytochemistry analysis of NIH/3T3 cells labeling Thrombospondin 1 with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/100 dilution.

Cells were fixed in 100% precooled methanol for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

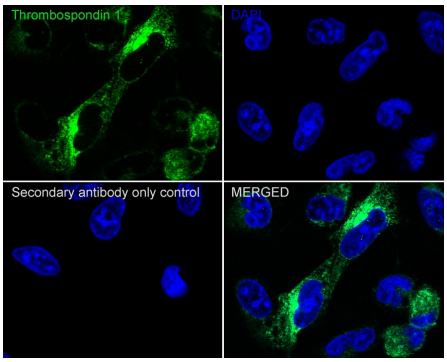

Fig4: Immunocytochemistry analysis of HUVEC cells labeling Thrombospondin 1 with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/100 dilution.

Cells were fixed in 100% precooled methanol for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

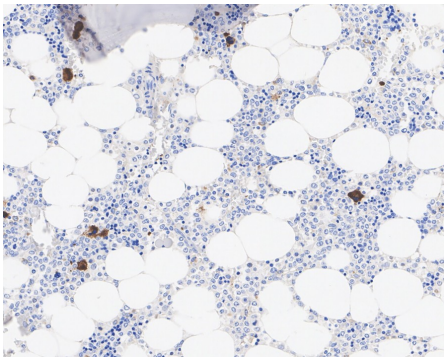

Fig5: Immunohistochemical analysis of paraffin-embedded human bone marrow tissue with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721916) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

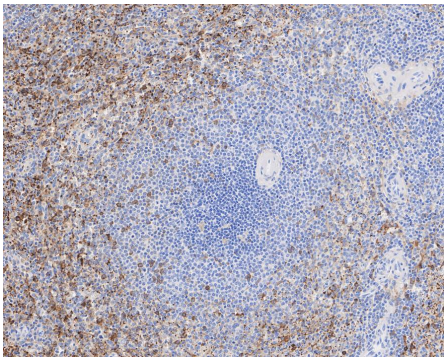

Fig6: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721916) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

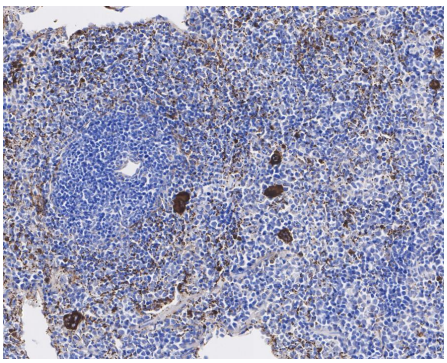

Fig7: Immunohistochemical analysis of paraffin-embedded mouse spleen tissue with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/8,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721916) at 1/8,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

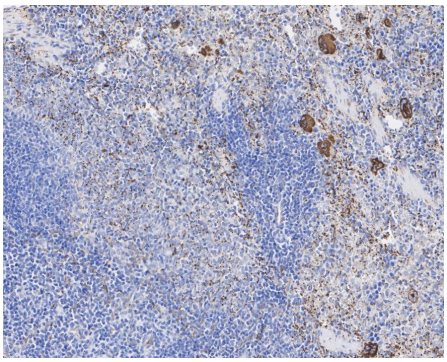

Fig8: Immunohistochemical analysis of paraffin-embedded rat spleen tissue with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/8,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721916) at 1/8,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

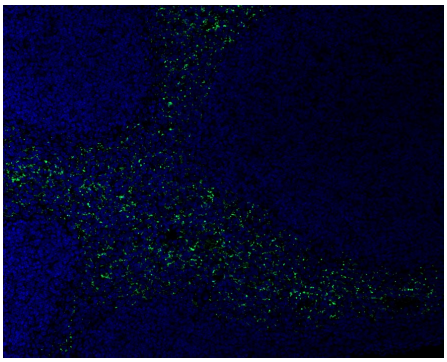

Fig9: Immunofluorescence analysis of paraffin-embedded mouse spleen tissue labeling Thrombospondin 1 with Rabbit anti-Thrombospondin 1 antibody (HA721916) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA721916, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

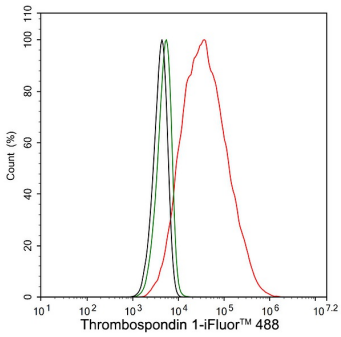

Fig10: Flow cytometric analysis of NIH/3T3 cells labeling Thrombospondin 1.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA721916, 1μg/mL) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Resovi A, Pinessi D, Chiorino G, Taraboletti G. Current understanding of the thrombospondin-1 interactome. Matrix Biol. 2014 Jul;37:83-91. doi: 10.1016/j.matbio.2014.01.012. Epub 2014 Jan 27.
2. Roberts DD, Miller TW, Rogers NM, Yao M, Isenberg JS. The matricellular protein thrombospondin-1 globally regulates cardiovascular function and responses to stress via CD47. Matrix Biol. 2012 Apr;31(3):162-9. doi: 10.1016/j.matbio.2012.01.005. Epub 2012 Jan 14.