

Thrombospondin 1 (SPM321): sc-65612

BACKGROUND

The Thrombospondin proteins (TSP 1-4) compose a family of glycoproteins that are involved in cell-to-cell and cell-to-matrix signaling. These extracellular, cell-surface proteins form complexes of both homo- and heteromultimers. Thrombospondins play a role in development, aggregation of platelets, adhesion and migration of cells and progression of cells through the growth cycle. Thrombospondin 1 is released from platelets in response to Thrombin stimulation and is a transient component of the extracellular matrix of developing and repairing tissues. Thrombospondin 2 shares a high degree of homology with TSP 1, and is thought to have overlapping but unique functions. Thrombospondin 3 is a developmentally regulated heparin binding protein. Thrombospondin 4 is neuronally expressed and stimulates neurite outgrowth.

CHROMOSOMAL LOCATION

Genetic locus: THBS1 (human) mapping to 15q14; Thbs1 (mouse) mapping to 2 E5.

SOURCE

Thrombospondin 1 (SPM321) is a mouse monoclonal antibody raised against reduced and alkylated purified TSP (fully denatured) from the supernatant of Thrombin-activated platelets of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Thrombospondin 1 (SPM321) is recommended for detection of reduced and non-reduced Thrombospondin 1 of mouse, rat, human, ovine, equine, bovine, porcine and canine origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200).

Suitable for use as control antibody for Thrombospondin 1 siRNA (h): sc-36665, Thrombospondin 1 siRNA (m): sc-36666, Thrombospondin 1 siRNA (r): sc-270413, Thrombospondin 1 shRNA Plasmid (h): sc-36665-SH, Thrombospondin 1 shRNA Plasmid (m): sc-36666-SH, Thrombospondin 1 shRNA Plasmid (r): sc-270413-SH, Thrombospondin 1 shRNA (h) Lentiviral Particles: sc-36665-V, Thrombospondin 1 shRNA (m) Lentiviral Particles: sc-36666-V and Thrombospondin 1 shRNA (r) Lentiviral Particles: sc-270413-V.

Molecular Weight of Thrombospondin 1 various forms: 165-198 kDa.

Molecular Weight of Thrombospondin 1 homotrimer: 420 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263, Saos-2 cell lysate: sc-2235 or Hs68 cell lysate: sc-2230.

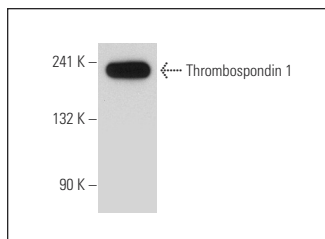
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Thrombospondin 1 (SPM321): sc-65612. Western blot analysis of Thrombospondin 1 expression in CCD-1064Sk whole cell lysate.

SELECT PRODUCT CITATIONS

- Meng, H., et al. 2009. Localization of blood proteins thrombospondin1 and ADAMTS-13 to cerebral corpora amyloacea. *Neuropathology* 29: 664-671.
- Calamia, V., et al. 2011. Metabolic labeling of chondrocytes for the quantitative analysis of the interleukin-1-β-mediated modulation of their intracellular and extracellular proteomes. *J. Proteome Res.* 10: 3701-3711.
- Calamia, V., et al. 2012. Secretome analysis of chondroitin sulfate-treated chondrocytes reveals anti-angiogenic, anti-inflammatory and anti-catabolic properties. *Arthritis Res. Ther.* 14: R202.
- Shi, X., et al. 2013. Thrombospondin-1 is a putative target gene of Runx2 and Runx3. *Int. J. Mol. Sci.* 14: 14321-14332.
- Zhang, B., et al. 2013. Identification of Enolase 1 and Thrombospondin-1 as serum biomarkers in HBV hepatic fibrosis by proteomics. *Proteome Sci.* 11: 30.
- Sudha, T., et al. 2014. Suppression of pancreatic cancer by sulfated non-anticoagulant low molecular weight heparin. *Cancer Lett.* 350: 25-33.
- Blanco, S., et al. 2016. Stem cell function and stress response are controlled by protein synthesis. *Nature* 534: 335-340.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **Thrombospondin 1 (C-8): sc-393504** for additional antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.