

Thrombospondin 1 (N-20): sc-12312

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 hetero-multimers. 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 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Thrombospondin 1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-12312 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Thrombospondin 1 (N-20) is recommended for detection of Thrombospondin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Thrombospondin 1 (N-20) is also recommended for detection of Thrombospondin 1 in additional species, including equine, canine, bovine and porcine.

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

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

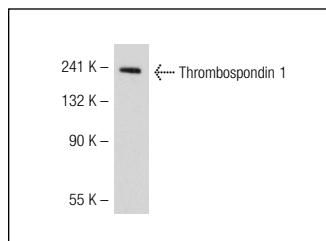
Molecular Weight of Thrombospondin 1 homotrimer: 420 kDa.

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

STORAGE

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

DATA



Thrombospondin 1 (N-20): sc-12312. Western blot analysis of Thrombospondin 1 expression in CCD-1064Sk whole cell lysate.

SELECT PRODUCT CITATIONS

- Ma, L., et al. 2003. Transforming growth factor- β -dependent and -independent pathways of induction of tubulointerstitial fibrosis in $\beta 6^{-/-}$ mice. *Am. J. Pathol.* 163: 1261-1273.
- Stenina, O.I., et al. 2003. Increased expression of thrombospondin-1 in vessel wall of diabetic Zucker rat. *Circulation* 107: 3209-3215.
- Deininger, M.H., et al. 2003. Angiogenic proteins in brains of patients who died with cerebral malaria. *J. Neuroimmunol.* 142: 101-111.
- Ooyama, A., et al. 2008. Anti-angiogenic effect of 5-Fluorouracil-based drugs against human colon cancer xenografts. *Cancer Lett.* 267: 26-36.
- Elpek, G.O., et al. 2008. Thrombospondin-1 expression correlates with angiogenesis in experimental cirrhosis. *World J. Gastroenterol.* 14: 2213-2217.
- Mallakin, A., et al. 2010. The Arf-inducing transcription factor Dmp1 encodes a transcriptional activator of amphiregulin, thrombospondin-1, JunB and Egr1. *Int. J. Cancer* 126: 1403-1416.
- He, J., et al. 2010. The induction of an angiogenic response in corneal myfibroblasts by platelet-activating factor (PAF). *Curr. Eye Res.* 35: 1063-1071.
- Ashokkumar, M., et al. 2011. An association study of thrombospondin 1 and 2 SNPs with coronary artery disease and myocardial infarction among South Indians. *Thromb. Res.* 28: e49-e53.

RESEARCH USE

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



Try **Thrombospondin 1 (C-8): sc-393504** or **Thrombospondin 1 (C-9): sc-393503**, our highly recommended monoclonal alternatives to Thrombospondin 1 (N-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Thrombospondin 1 (C-8): sc-393504**.