

# Thrombospondin 2 (N-15): sc-12313

## 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 Thrombospondin 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.

## REFERENCES

1. Mosher, D.F. 1990. Physiology of Thrombospondin. *Annu. Rev. Med.* 41: 85-97.
2. Bornstein, P., et al. 1991. A second, expressed Thrombospondin gene (Thbs2) exists in the mouse genome. *J. Biol. Chem.* 266: 12821-12824.
3. O'Rourke, K.M., et al. 1992. Thrombospondin 1 and Thrombospondin 2 are expressed as both homo and heterotrimers. *J. Biol. Chem.* 267: 24921-24924.
4. LaBell, T.L., et al. 1992. Thrombospondin 2: partial cDNA sequence, chromosome location, and expression of a second member of the Thrombospondin gene family in humans. *Genomics* 12: 421-429.
5. Jahav, J. 1993. The functions of Thrombospondin and its involvement in physiology and pathophysiology. *Biochem. Biophys. Acta* 1182: 1-14.

## CHROMOSOMAL LOCATION

Genetic locus: THBS2 (human) mapping to 6q27; Thbs2 (mouse) mapping to 17 A2.

## SOURCE

Thrombospondin 2 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Thrombospondin 2 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-12313 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

Thrombospondin 2 (N-15) is recommended for detection of Thrombospondin 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 2 (N-15) is also recommended for detection of Thrombospondin 2 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Thrombospondin 2 siRNA (h): sc-37031, Thrombospondin 2 siRNA (m): sc-37032, Thrombospondin 2 shRNA Plasmid (h): sc-37031-SH, Thrombospondin 2 shRNA Plasmid (m): sc-37032-SH, Thrombospondin 2 shRNA (h) Lentiviral Particles: sc-37031-V and Thrombospondin 2 shRNA (m) Lentiviral Particles: sc-37032-V.

Molecular Weight of Thrombospondin 2: 129 kDa.

## SELECT PRODUCT CITATIONS

1. Vallbo, C., et al. 2004. The expression of Thrombospondin 1 in benign prostatic hyperplasia and prostatic intraepithelial neoplasia is decreased in prostate cancer. *BJU Int.* 93: 1339-1343.
2. Vallbo, C. and Damber, J.E. 2005. Thrombospondins, metallo proteases and Thrombospondin receptors messenger RNA and protein expression in different tumour sublines of the Dunning prostate cancer model. *Acta Oncol.* 44: 293-298.
3. Fears, C.Y., et al. 2005. Low-density lipoprotein receptor-related protein contributes to the antiangiogenic activity of Thrombospondin 2 in a murine glioma model. *Cancer Res.* 65: 9338-9346.
4. Damber, J.E., et al. 2006. The anti-tumour effect of low-dose continuous chemotherapy may partly be mediated by Thrombospondin. *Cancer Chemother. Pharmacol.* 58: 354-360.
5. Liauw, J., et al. 2008. Thrombospondins 1 and 2 are necessary for synaptic plasticity and functional recovery after stroke. *J. Cereb. Blood Flow Metab.* 28: 1722-1732.
6. Szasz, T., et al. 2009. Differential expression of pancreatitis-associated protein and Thrombospondins in arterial versus venous tissues. *J. Vasc. Res.* 46: 551-560.
7. Didangelos, A., et al. 2011. Extracellular matrix composition and remodeling in human abdominal aortic aneurysms: a proteomics approach. *Mol. Cell. Proteomics* 10: M111.008128.



Try **Thrombospondin 1/2 (G-1): sc-133061** or **Thrombospondin 2 (4): sc-136238**, our highly recommended monoclonal alternatives to Thrombospondin 2 (N-15).