

# Thrombospondin 1/2 (H-300): sc-14013

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: THBS1 (human) mapping to 15q14, THBS2 (human) mapping to 6q27; Thbs1 (mouse) mapping to 2 E5, Thbs2 (mouse) mapping to 17 A2.

## SOURCE

Thrombospondin 1/2 (H-300) is a rabbit polyclonal antibody raised against amino acids 401-700 of Thrombospondin 1/2 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.

## APPLICATIONS

Thrombospondin 1/2 (H-300) is recommended for detection of Thrombospondin 1 and Thrombospondin 2 of mouse, rat, human and *Xenopus laevis* 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 1/2 (H-300) is also recommended for detection of Thrombospondin 1 and Thrombospondin 2 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Thrombospondin 1/2: 190 kDa.

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

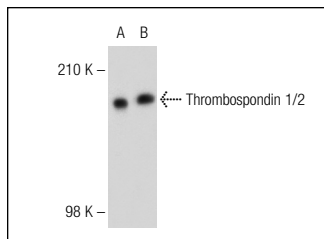
## RESEARCH USE

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

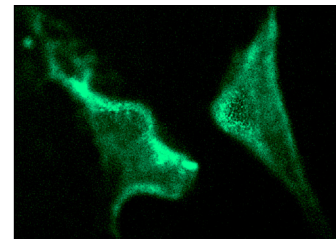
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Thrombospondin 1/2 (H-300): sc-14013. Western blot analysis of Thrombospondin 1/2 expression in Saos-2 (A) and 3T3-L1 (B) whole cell lysates



Thrombospondin 1/2 (H-300): sc-14013. Immunofluorescence staining of methanol-fixed CCD-1064-SK cells showing membrane staining.

## SELECT PRODUCT CITATIONS

1. Nishiwaki, T., et al. 2006. Reduced expression of thrombospondins and craniofacial dysmorphism in mice overexpressing Fra1. *J. Bone Miner. Res.* 21: 596-604.
2. Yamauchi, M., et al. 2007. Novel antiangiogenic pathway of thrombospondin-1 mediated by suppression of the cell cycle. *Cancer Sci.* 98: 1491-1497.
3. Yamada, Y., et al. 2010. Mechanisms of immune suppression for CD8<sup>+</sup> T cells by human corneal endothelial cells via membrane-bound TGFβ. *Invest. Ophthalmol. Vis. Sci.* 51: 2548-2557.
4. Morgan-Rowe, L., et al. 2011. Thrombospondin 1 in hypoxia-conditioned media blocks the growth of human microvascular endothelial cells and is increased in systemic sclerosis tissues. *Fibrogenesis Tissue Repair* 4: 13.

## STORAGE

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



Try **Thrombospondin 1/2 (G-1): sc-133061** or **Thrombospondin 1/2 (D-9): sc-74538**, our highly recommended monoclonal alternatives to Thrombospondin 1/2 (H-300).