

Thrombospondin 1 (TX17.10): sc-65210

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.

REFERENCES

1. Mosher, D.F. 1990. Physiology of Thrombospondin. *Annu. Rev. Med.* 41: 85-97.
2. Bornstein, P., O'Rourke, K., Wilkstrom, K., Wolf, F.W., Katz, R., Li, P. and Dixit, V.M. 1991. A second, expressed Thrombospondin gene (Thbs2) exists in the mouse genome. *J. Biol. Chem.* 266: 12821-12824.
3. LaBell, T.L., Milewicz, D.J., Distech, C.M. and Byers, B.H. 1992. Thrombospondin II: partial cDNA sequence, chromosome location and expression of a second member of the thrombospondin gene family in humans. *Genomics* 12: 421-429.
4. O'Rourke, K.M., Laherty, C.D. and Dixit, V.M. 1992. Thrombospondin 1 and Thrombospondin 2 are expressed as both homo- and heterotrimers. *J. Biol. Chem.* 267: 24921-24924.
5. Jahav, J. 1993. The functions of Thrombospondin and its involvement in physiology and pathophysiology. *Biochem. Biophys. Acta* 1182: 1-14.
6. Arber, S. and Caroni, P. 1995. Thrombospondin 4, an extracellular matrix protein expressed in the developing and adult nervous system promotes neurite outgrowth. *J. Cell Biol.* 131: 1083-1094.
7. Qabar, A., Derick, L., Lawler, J. and Dixit, V. 1995. Thrombospondin 3 is a pentameric molecule held together by interchain disulfide linkage involving two Cysteine residues. *J. Biol. Chem.* 270: 12725-12729.
8. Adams, J.C. 1997. Thrombospondin 1. *Int. J. Biochem. Cell Biol.* 29: 861-865.

CHROMOSOMAL LOCATION

Genetic locus: Thbs2 (mouse) mapping to 17 A2.

SOURCE

Thrombospondin 1 (TX17.10) is a rat monoclonal antibody raised against Thrombospondin 1 of mouse origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-65210 PE) or fluorescein (sc-65210 FITC) conjugates for flow cytometry, 100 tests.

APPLICATIONS

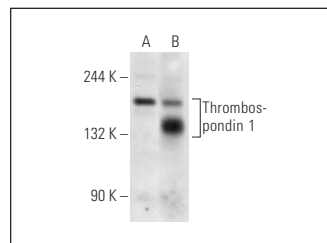
Thrombospondin 1 (TX17.10) is recommended for detection of Thrombospondin 1 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10⁶ cells).

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

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

Molecular Weight of Thrombospondin 1 homotrimer: 420 kDa.

DATA



Thrombospondin 1 (TX17.10): sc-65210. Western blot analysis of Thrombospondin 1 expression in non-transfected (A) and mouse Thrombospondin 1 transfected (B) BW5147 whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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



See **Thrombospondin 1 (A6.1): sc-59887** for additional antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.