

Thrombospondin 2 (4): sc-136238

BACKGROUND

The Thrombospondin proteins (TSP 1-5) 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: THBS2 (human) mapping to 6q27; Thbs2 (mouse) mapping to 17 A2.

SOURCE

Thrombospondin 2 (4) is a mouse monoclonal antibody raised against amino acids 173-295 of Thrombospondin 2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-136238 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Thrombospondin 2 (4) 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), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

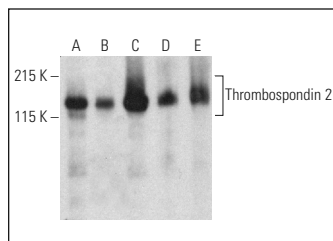
Molecular Weight of Thrombospondin 2: 129 kDa.

Positive Controls: BJ whole cell lysate: sc-364359, Saos-2 cell lysate: sc-2235 or CCD-1064Sk cell lysate: sc-2263.

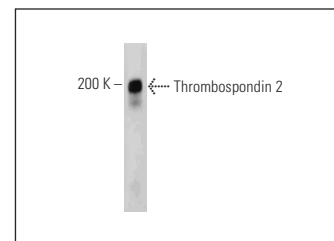
STORAGE

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

DATA



Thrombospondin 2 (4): sc-136238. Western blot analysis of Thrombospondin 2 expression in BJ (A), Saos-2 (B), CCD-1064Sk (C), NIH/3T3 (D) and MC3T3-E1 (E) whole cell lysates.



Thrombospondin 2 (4): sc-136238. Western blot analysis of Thrombospondin 2 expression in RSV-3T3 whole cell lysate.

SELECT PRODUCT CITATIONS

1. McKinney, K.Q., et al. 2011. Discovery of putative pancreatic cancer biomarkers using subcellular proteomics. *J. Proteomics* 74: 79-88.
2. Crispi, S., et al. 2013. Transcriptional profiling of endometriosis tissues identifies genes related to organogenesis defects. *J. Cell. Physiol.* 228: 1927-1934.
3. Feng, D., et al. 2019. Characterization of matricellular protein expression signatures in mechanistically diverse mouse models of kidney injury. *Sci. Rep.* 9: 16736.
4. Ja, S., et al. 2020. Isolation and characterization of primary human trabecular meshwork cells from segmental flow regions: new tools for understanding segmental flow. *Exp. Eye Res.* 197: 108046.
5. Liu, J.F., et al. 2020. Thrombospondin-2 stimulates MMP-9 production and promotes osteosarcoma metastasis via the PLC, PKC, c-Src and NFκB activation. *J. Cell. Mol. Med.* 24: 12826-12839.
6. Xu, C., et al. 2020. Thrombospondin 2/Toll-like receptor 4 axis contributes to HIF-1α-derived glycolysis in colorectal cancer. *Front. Oncol.* 10: 557730.

RESEARCH USE

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

PROTOCOLS

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