SANTA CRUZ BIOTECHNOLOGY, INC.

Thrombospondin 3 (A-12): sc-25348

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.
3. LaBell, T.L., et al. 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., et al. 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. Biochim. Biophys. Acta 1182: 1-14.

CHROMOSOMAL LOCATION

Genetic locus: THBS3 (human) mapping to 1q22; Thbs3 (mouse) mapping to 3 F1.

SOURCE

Thrombospondin 3 (A-12) is a mouse monoclonal antibody raised against amino acids 131-280 of Thrombospondin 3 of human origin.

PRODUCT

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

Thrombospondin 3 (A-12) is available conjugated to agarose (sc-25348 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25348 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25348 PE), fluorescein (sc-25348 FITC), Alexa Fluor® 488 (sc-25348 AF488), Alexa Fluor® 546 (sc-25348 AF546), Alexa Fluor® 594 (sc-25348 AF594) or Alexa Fluor® 647 (sc-25348 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25348 AF680) or Alexa Fluor® 790 (sc-25348 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

Thrombospondin 3 (A-12) is recommended for detection of Thrombospondin 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

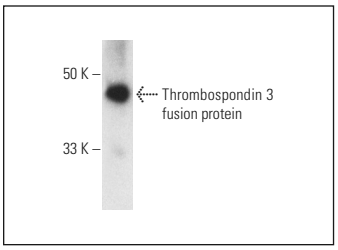
Suitable for use as control antibody for Thrombospondin 3 siRNA (h): sc-43192, Thrombospondin 3 siRNA (m): sc-43193, Thrombospondin 3 shRNA Plasmid (h): sc-43192-SH, Thrombospondin 3 shRNA Plasmid (m): sc-43193-SH, Thrombospondin 3 shRNA (h) Lentiviral Particles: sc-43192-V and Thrombospondin 3 shRNA (m) Lentiviral Particles: sc-43193-V.

Molecular Weight of Thrombospondin 3: 160 kDa.

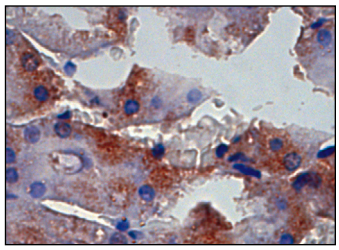
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Thrombospondin 3 (A-12): sc-25348. Western blot analysis of human recombinant Thrombospondin 3 fusion protein.



Thrombospondin 3 (A-12): sc-25348. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing extracellular localization.

SELECT PRODUCT CITATIONS

1. Harada, J., et al. 2021. Pathological significance and prognostic roles of Thrombospondin-3, 4 and 5 in bladder cancer. In Vivo 35: 1693-1701.

STORAGE

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