

Thrombospondin 1 (A4.1): sc-59886

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 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.

CHROMOSOMAL LOCATION

Genetic locus: THBS1 (human) mapping to 15q14; Thbs1 (mouse) mapping to 2 E5.

SOURCE

Thrombospondin 1 (A4.1) is a mouse monoclonal antibody raised against calcium-replete native purified Thrombospondin of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Thrombospondin 1 (A4.1) is available conjugated to either phycoerythrin (sc-59886 PE) or fluorescein (sc-59886 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

Thrombospondin 1 (A4.1) is recommended for detection of Thrombospondin 1 of mouse, rat, human and bovine 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 flow cytometry (1 µg per 1 x 10⁶ cells); non cross-reactive with Fibronectin, Fibrinogen or Von Willebrand factor.

Suitable for use as control antibody for Thrombospondin 1 siRNA (h): sc-36665, Thrombospondin 1 siRNA (m): sc-36666, Thrombospondin 1 siRNA (r): sc-270413, Thrombospondin 1 shRNA Plasmid (h): sc-36665-SH, Thrombospondin 1 shRNA Plasmid (m): sc-36666-SH, Thrombospondin 1 shRNA Plasmid (r): sc-270413-SH, Thrombospondin 1 shRNA (h) Lentiviral Particles: sc-36665-V, Thrombospondin 1 shRNA (m) Lentiviral Particles: sc-36666-V and Thrombospondin 1 shRNA (r) Lentiviral Particles: sc-270413-V.

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

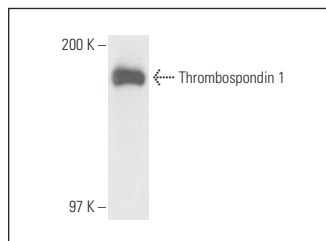
Molecular Weight of Thrombospondin 1 homotrimer: 420 kDa.

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

STORAGE

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

DATA



Thrombospondin 1 (A4.1): sc-59886. Western blot analysis of Thrombospondin 1 expression in CCD-1064Sk whole cell lysate.

SELECT PRODUCT CITATIONS

- Ng, Y.Z., et al. 2012. Fibroblast-derived dermal matrix drives development of aggressive cutaneous squamous cell carcinoma in patients with recessive dystrophic epidermolysis bullosa. *Cancer Res.* 72: 3522-3534.
- Malek, M.H., et al. 2013. Similar skeletal muscle angiogenic and mitochondrial signalling following 8 weeks of endurance exercise in mice: discontinuous versus continuous training. *Exp. Physiol.* 98: 807-818.
- Lee, I., et al. 2015. (-)-Epicatechin combined with 8 weeks of treadmill exercise is associated with increased angiogenic and mitochondrial signaling in mice. *Front. Pharmacol.* 6: 43.
- Sayols-Baixeras, S., et al. 2015. Identification of a new locus and validation of previously reported loci showing differential methylation associated with smoking. *The REGICOR study. Epigenetics* 10: 1156-1165.
- Lee, I., et al. 2016. (-)-Epicatechin attenuates degradation of mouse oxidative muscle following hindlimb suspension. *J. Strength Cond. Res.* 30: 1-10.
- Jeanne, A., et al. 2016. Matricellular TSP-1 as a target of interest for impeding melanoma spreading: towards a therapeutic use for TAX2 peptide. *Clin. Exp. Metastasis* 33: 637-649.
- Han, H.H., et al. 2016. Angiopoietin-2 promotes ER⁺ breast cancer cell survival in bone marrow niche. *Endocr. Relat. Cancer* 23: 609-623.
- Wang, X., et al. 2018. SILAC-based quantitative MS approach for real-time recording protein-mediated cell-cell interactions. *Sci. Rep.* 8: 8441.

RESEARCH USE

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



See **Thrombospondin 1 (C-8): sc-393504** for Thrombospondin 1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.