

Thrombospondin 1 (A6.1): sc-59887

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.

CHROMOSOMAL LOCATION

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

SOURCE

Thrombospondin 1 (A6.1) is a mouse monoclonal antibody raised against reduced and alkylated Thrombospondin 1 of human origin.

PRODUCT

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

Thrombospondin 1 (A6.1) is available conjugated to either Alexa Fluor[®] 546 (sc-59887 AF546) or Alexa Fluor[®] 594 (sc-59887 AF594), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-59887 AF680) or Alexa Fluor[®] 790 (sc-59887 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Thrombospondin 1 (A6.1) is recommended for detection of reduced and non-reduced Thrombospondin 1 of mouse, rat, human, equine, bovine, porcine and canine 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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 Thrombospondin 1 various forms: 165-198 kDa.

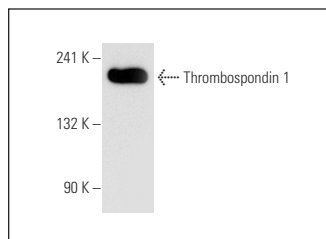
Molecular Weight of Thrombospondin 1 homotrimer: 420 kDa.

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

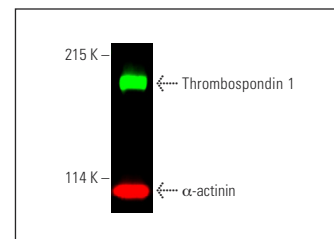
STORAGE

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

DATA



Thrombospondin 1 (A6.1): sc-59887. Western blot analysis of Thrombospondin 1 expression in CCD-1064Sk whole cell lysate.



Simultaneous direct near-infrared western blot analysis of Thrombospondin 1 expression, detected with Thrombospondin 1 (A6.1) Alexa Fluor[®] 680: sc-59887 AF680 and α -actinin expression, detected with α -actinin (H-2) Alexa Fluor[®] 790: sc-17829 AF790 in CCD-1064Sk whole cell lysate. Blocked with UltraCruz[®] Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

- Liau, J., et al. 2008. Thrombospondins 1 and 2 are necessary for synaptic plasticity and functional recovery after stroke. *J. Cereb. Blood Flow Metab.* 28: 1722-1732.
- Ortiz-Masià, D., et al. 2012. Induction of CD36 and Thrombospondin-1 in macrophages by hypoxia-inducible factor 1 and its relevance in the inflammatory process. *PLoS ONE* 7: e48535.
- Olenich, S.A., et al. 2013. Temporal response of positive and negative regulators in response to acute and chronic exercise training in mice. *J. Physiol.* 591: 5157-5169.
- Olenich, S.A., et al. 2014. Effects of detraining on the temporal expression of positive and negative angioregulatory proteins in skeletal muscle of mice. *J. Physiol.* 592: 3325-3338.
- Fullar, A., et al. 2015. Remodeling of extracellular matrix by normal and tumor-associated fibroblasts promotes cervical cancer progression. *BMC Cancer* 15: 256.
- Chelluri, R., et al. 2016. Valproic acid alters angiogenic and trophic gene expression in human prostate cancer models. *Anticancer Res.* 36: 5079-5086.
- Sallon, C., et al. 2017. Thrombospondin-1 (TSP-1), a new bone morphogenetic protein-2 and -4 (BMP-2/4) antagonist identified in pituitary cells. *J. Biol. Chem.* 292: 15352-15368.
- Isabel, B.M., et al. 2018. Alterations in neuronal cytoskeletal and astrocytic proteins content in the brain of the autistic-like mouse strain C58/J. *Neurosci. Lett.* 682: 32-38.

RESEARCH USE

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

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA