Thrombospondin 1 Monoclonal Antibody (A6.1)

Product Details	
Size	200 µL
Species Reactivity	Bovine, Dog, Horse, Human, Mouse, Sheep, Pig, Rat
Published Species	Rat, Sheep, Human, Mouse
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	A6.1
Conjugate	Unconjugated
Immunogen	Reduced and alkylated purified human TSP (fully denatured) from the supernatant of thrombin-activated platelets
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein G
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_10984611

Applications	Tested Dilution	Publications
Western Blot (WB)	1-2 µg/mL	52 Publications
Immunohistochemistry (IHC)	-	42 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:25-1:50	2 Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunocytochemistry (ICC/IF)	1:20-1:200	6 Publications
Flow Cytometry (Flow)	Assay-dependent	-
ELISA (ELISA)	-	3 Publications
Immunoprecipitation (IP)	2 µg/mL	3 Publications
Neutralization (Neu)	-	4 Publications
Dot blot (DB)	-	2 Publications
Immunomicroscopy (IM)	Assay-dependent	-
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

MA5-13398 targets Thrombospondin in FACS, ICC/IF, IHC (P), IM, IP, and WB applications and shows reactivity with Bovine, Canine, Equine, Human, mouse, Ovine, Porcine, and Rat samples.

The MA5-13398 immunogen is reduced and alkylated purified human TSP (fully denatured) from the supernatant of thrombin-activated platelets.

Advanced Verification Data

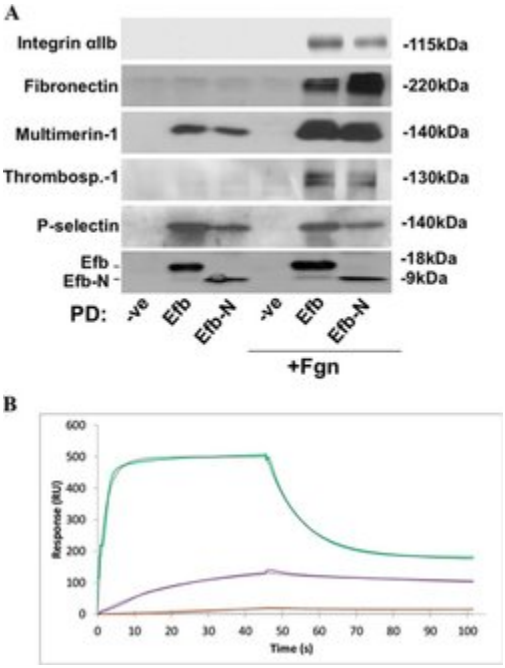

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FIGURE 5. Efb interacts with platelet P-selectin. A , human platelets were ultrasonicated in the presence or absence of 3 mg/ml added fibrinogen. Sigma His-Select HF nickel affinity gel was used to capture His-tagged Efb- or Efb-N-interacting proteins from platelet lysates. Affinity precipitates were separated by SDS-PAGE and immunoblotted for integrin alphaIIb, P-selectin, multimerin-1, fibronectin, thrombospondin-1 (indicated by Thrombosp.-1), and His tag (to confirm Efb/Efb-N expression and immobilization). Immunoblots shown here are representative of those from three independent experiments. -ve , negative control; PD , pulldown. B , SPR data confirm the direct interaction of Efb and P-selectin. Recombinant P-selectin-Fc immobilized on COOHV-coated SensiQ TM sensor chips was treated with increasing concentrations of Efb (100 n m (brown), 300 n m (purple), and 2.8 mu m (green)). All experiments were performed using the SensiQ TM Pioneer FE SPR platform (SensiQ Technologies). Experimental data were fit using the Qdat data analysis software. Curves were fitted using a least squares fitting algorithm. RU , response units. Cell treatment validation info.

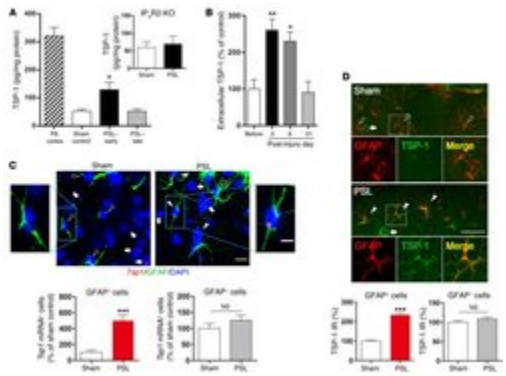

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Figure 4 Astrocytic Ca 2+ -dependent upregulation of TSP-1 in S1 cortex following PSL injury. (A) TSP-1 protein levels in S1 cortex measured with ELISA in P8 positive control, sham control, PSL-early, and PSL-late mice. n = 3-4 mice/group. * P < 0.05 versus sham control or PSL-late mice, by 1-way ANOVA. Inset graph: S1 cortex TSP-1 levels in sham and PSL-early IP 3 R2-KO mice (n = 3/group). No significant difference was observed between groups (P > 0.05, by unpaired t test). (B) Extracellular TSP-1 levels in S1 cortex following PSL injury measured with ELISA using in vivo microdialysate samples. Extracellular TSP-1 levels significantly increased following PSL injury, peaked at 3 to 6 days after injury, and subsequently decreased to baseline levels (n = 6 mice/group). * P < 0.05 and ** P < 0.01 versus pre-injury levels, by 1-way ANOVA. (C) Top: Representative FISH images of Tsp1 mRNA (red) and immunohistochemical staining of astrocytes (GFAP, green) with DAPI staining (blue). Scale bars: 10 mum and 5 mum (magnified images). Solid arrowheads indicate representative GFAP + and Tsp1 mRNA + cells. Open arrowheads indicate representative GFAP + and Tsp1 mRNA - cells. Arrows indicate representative GFAP - and Tsp1 mRNA + cells. Bottom: Proportion of Tsp1 mRNA + cells in GFAP + and GFAP - cells normalized to the proportion in the sham group. n = 15 image sections/5 mice for sham and 12 sections/4 mice for the PSL-injured group (3 sections/mouse). *** P < 0.001 and NS (P > 0 Knockdown validation info.

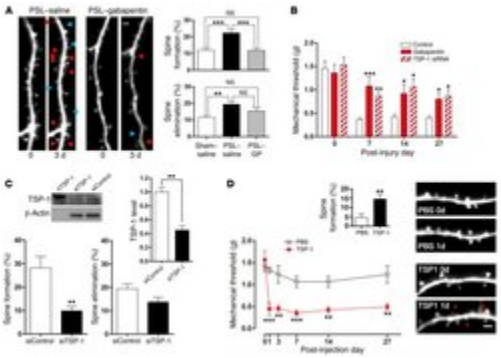

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Figure 5 TSP-1 released from S1 astrocytes following PSL injury promotes synaptic rewiring and sustained mechanical allodynia. (A) Images of the same S1 apical dendrite before and 3 days after PSL injury with sustained (Elvax) saline or gabapentin application. Arrowheads indicate spine formation (red) and elimination (blue). Scale bar: 2 ?m. Graphs: Spine formation (top) and elimination (bottom) rates in saline-administered, sham-operated mice (n = 24 dendrites/3 mice), PSL-injured mice (n = 17 dendrites/3 mice), and gabapentin-infused, PSL-injured mice (n = 21 dendrites/3 mice). **P < 0.01 and ***P < 0.001, by 1-way ANOVA. (B) Mean mechanical thresholds following PSL injury in control (n = 7), gabapentin-infused (n = 5), and TSP-1 siRNA-injected (n = 6) mice. *P < 0.05, **P < 0.01, and ***P < 0.001 versus control, by 1-way ANOVA. (C) Western blots demonstrate selective knockdown of TSP-1 expression in S1 cortex following TSP-1 siRNA injection. As for positive control of TSP-1, recombinant human TSP-1 (hTSP-1) was loaded (left band). Graphs: Quantitative analysis of Western blots (n = 4). **P < 0.01, by unpaired t test. Spine formation (left) and elimination (right) rates in control siRNA-injected mice (siControl, n = 11 dendrites/3 mice) and TSP-1 siRNA-injected mice (siTSP-1, n = 8 dendrites/2 mice). **P < 0.01, by unpaired t test. (D) Single injection of TSP-1 protein (n = 6 mice), but not PBS (n = 6), into S1 cortex induced mechanical hypersensitivity that lasted at least Knockdown validation info.

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116 References

Western Blot (52)

Cells

High Glucose Treatment Limits Drosha Protein Expression and Alters AngiomiR Maturation in Microvascular Primary Endothelial Cells via an Mdm2-dependent Mechanism.

"Published figure using Thrombospondin 1 monoclonal antibody (Product # MA5-13398) in Western Blot"

Authors: Lam B,Nwadozi E,Haas TL,Birot O,Roudier E

Species
Not Applicable

Dilution
Not Cited

Year
2021

Cellular and molecular life sciences : CMLS

hnRNPA2B1 inhibits the exosomal export of miR-503 in endothelial cells.

"MA5-13398 was used in Western Blotting to understand the mechanisms of chemotherapeutic drug epirubicin increasing the exosomal export of miR-503 in endothelial cells."

Authors: Pérez-Boza J,Boeckx A,Lion M,Dequiedt F,Struman I

Species
Human

Dilution
Not Cited

Year
2020

View more WB references on thermofisher.com

Immunohistochemistry (42)

PloS one

Long-term gene therapy with thrombospondin 2 inhibits TGF- activation, inflammation and angiogenesis in chronic allograft nephropathy.

"MA5-13398 was used in immunohistochemistry to study TGF-beta activation, inflammation and angiogenesis following long-term thrombospondin-2 gene therapy in a model of chronic allograft nephropathy"

Authors: Daniel C,Vogelbacher R,Stief A,Grigo C,Hugo C

Species
Rat

Dilution
Not Cited

Year
2015

Journal of the American Heart Association

Novel tissue-specific mechanism of regulation of angiogenesis and cancer growth in response to hyperglycemia.

"MA5-13398 was used in immunohistochemistry to study the role of miRNA-467 in the tissue-specific hyperglycemic regulation of angiogenesis and cancer cell growth"

Authors: Bhattacharyya S,Sul K,Krukovets I,Nestor C,Li J,Adognravi OS

Species
Human

Dilution
1:50

Year
2012

View more IHC references on thermofisher.com

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IHC (P) (2) IHC (F) (1) ICC/IF (6) ELISA (3) IP (3) Neu (4) DB (2) Misc (1)