

F-Spondin (B-3): sc-390182

BACKGROUND

F-Spondin, also designated Spondin-1 or vascular smooth muscle growth-promoting factor, is a member of the subgroup of the Thrombospondin type 1 class molecules. F-Spondin is a secreted, extracellular matrix-attached protein which patterns axonal trajectories by promoting adhesion and outgrowth of commissural axons, in addition to inhibiting outgrowth of motor axons. F-Spondin contains two conserved domains at the amino terminus, FS1 and FS2, which are regions of homology with Reelin and Mindin. Additionally, F-Spondin contains either six or four thrombospondin repeats (TSRs) at the carboxyl terminus, which are typical of class 2 TSRs. The F-Spondin gene is expressed in the nervous system, mainly at the embryonic floor plate and the hippocampus. F-Spondin may play a role in promoting axonal regeneration after nerve injury and in inflammatory processes in the nervous system.

REFERENCES

1. Burstyn-Cohen, T., et al. 1998. Accumulation of F-Spondin in injured peripheral nerve promotes the outgrowth of sensory axons. *J. Neurosci.* 18: 8875-8885.
2. Shimeld, S.M. 1998. Characterization of Amphif-Spondin reveals the modular evolution of chordate F-Spondin genes. *Mol. Biol. Evol.* 15: 1218-1223.
3. Tzarfaty-Majar, V., et al. 2001. Plasmin-mediated release of the guidance molecule F-Spondin from the extracellular matrix. *J. Biol. Chem.* 276: 28233-28241.
4. Tzarfati-Majar, V., et al. 2001. F-Spondin is a contact-repellent molecule for embryonic motor neurons. *Proc. Natl. Acad. Sci. USA* 98: 4722-4727.
5. Feinstein, Y. and Klar, A. 2004. The neuronal class 2 TSR proteins F-Spondin and Mindin: a small family with divergent biological activities. *Int. J. Biochem. Cell Biol.* 36: 975-980.

CHROMOSOMAL LOCATION

Genetic locus: SPON1 (human) mapping to 11p15.2; Spon1 (mouse) mapping to 7 F1.

SOURCE

F-Spondin (B-3) is a mouse monoclonal antibody raised against amino acids 508-807 mapping at the C-terminus of F-Spondin of human origin.

PRODUCT

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

F-Spondin (B-3) is available conjugated to agarose (sc-390182 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390182 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390182 PE), fluorescein (sc-390182 FITC), Alexa Fluor® 488 (sc-390182 AF488), Alexa Fluor® 546 (sc-390182 AF546), Alexa Fluor® 594 (sc-390182 AF594) or Alexa Fluor® 647 (sc-390182 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390182 AF680) or Alexa Fluor® 790 (sc-390182 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

F-Spondin (B-3) is recommended for detection of F-Spondin and mature Spondin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for F-Spondin siRNA (h): sc-60613, F-Spondin siRNA (m): sc-60614, F-Spondin shRNA Plasmid (h): sc-60613-SH, F-Spondin shRNA Plasmid (m): sc-60614-SH, F-Spondin shRNA (h) Lentiviral Particles: sc-60613-V and F-Spondin shRNA (m) Lentiviral Particles: sc-60614-V.

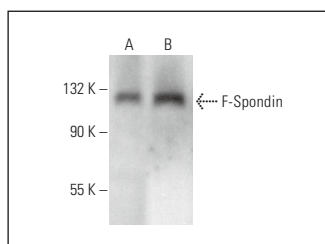
Molecular Weight of F-Spondin: 115 kDa.

Positive Controls: human lung extract: sc-363767, WI-38 whole cell lysate: sc-364260 or Caki-1 cell lysate: sc-2224.

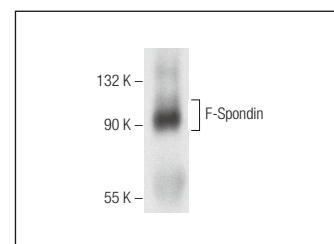
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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 BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



F-Spondin (B-3): sc-390182. Western blot analysis of F-Spondin expression in WI-38 (A) and Caki-1 (B) whole cell lysates.



F-Spondin (B-3): sc-390182. Western blot analysis of F-Spondin expression in human lung tissue extract.

STORAGE

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

RESEARCH USE

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

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