

F-Spondin (C-16): sc-49004

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

- Burstyn-Cohen, T., Frumkin, A., Xu, Y.T., Scherer, S.S. and Klar, A. 1998. Accumulation of F-spondin in injured peripheral nerve promotes the outgrowth of sensory axons. *J. Neurosci.* 18: 8875-8885.
- Shimeld, S.M. 1998. Characterization of AmphiF-spondin reveals the modular evolution of chordate F-spondin genes. *Mol. Biol. Evol.* 15: 1218-1223.
- Tzarfaty-Majar, V., López-Aleman, R., Feinstein, Y., Gombau, L., Goldshmidt, O., Soriano, E., Muñoz-Cánoves, P. and Klar, A. 2001. Plasmin-mediated release of the guidance molecule F-spondin from the extracellular matrix. *J. Biol. Chem.* 276: 28233-28241.
- Tzarfati-Majar, V., Burstyn-Cohen, T. and Klar, A. 2001. F-Spondin is a contact-repellent molecule for embryonic motor neurons. *Proc. Natl. Acad. Sci. USA* 98: 4722-4727.
- 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.
- Pyle-Chenault, R.A., Stolk, J.A., Molesh, D.A., Boyle-Harlan, D., McNeill, P.D., Repasky, E.A., Jiang, Z., Fanger, G.R. and Xu, J. 2005. VSGP/F-spondin: a new ovarian cancer marker. *Tumour Biol.* 26: 245-257.

CHROMOSOMAL LOCATION

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

SOURCE

F-Spondin (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of F-Spondin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49004 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

F-Spondin (C-16) is recommended for detection of F-Spondin and mature Spondin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

F-Spondin (C-16) is also recommended for detection of F-Spondin and mature Spondin-1 in additional species, including canine, bovine and porcine.

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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **F-Spondin (B-3): sc-390182**, our highly recommended monoclonal alternative to F-Spondin (C-16).