

FJX1 (S-14): sc-167902

BACKGROUND

FJX1 (four-jointed box protein 1), also known as four-jointed protein homolog, is a 437 amino acid protein that belongs to the FJX1/FJ family. FJX1 is highly conserved in vertebrates and is expressed in the peripheral nervous system, epithelial cells of multiple organs and during limb development. FJX1 is processed and secreted as a presumptive ligand and may act as an inhibitor of dendrite extension and branching. In *Drosophila*, FJX1 is important for growth and differentiation of legs and wings, and for proper development of the eyes. FAT4, an essential gene that has a key role in vertebrate PCP (planar cell polarity), represses FJX1 expression which may lead to cystic diseases in humans.

REFERENCES

- Ashery-Padan, R., et al. 1999. Fjx1, the murine homologue of the *Drosophila* four-jointed gene, codes for a putative secreted protein expressed in restricted domains of the developing and adult brain. *Mech. Dev.* 80: 213-217.
- Rock, R., et al. 2005. Fjx1: a notch-inducible secreted ligand with specific binding sites in developing mouse embryos and adult brain. *Dev. Dyn.* 234: 602-612.
- Rock, R., et al. 2005. Expression of mouse dchs1, fjx1, and fat-j suggests conservation of the planar cell polarity pathway identified in *Drosophila*. *Dev. Dyn.* 234: 747-755.
- Snijders, A.M., et al. 2005. Rare amplicons implicate frequent deregulation of cell fate specification pathways in oral squamous cell carcinoma. *Oncogene* 24: 4232-4242.
- Probst, B., et al. 2007. The rodent Four-jointed ortholog Fjx1 regulates dendrite extension. *Dev. Biol.* 312: 461-470.
- Järvinen, A.K., et al. 2008. High-resolution copy number and gene expression microarray analyses of head and neck squamous cell carcinoma cell lines of tongue and larynx. *Genes Chromosomes Cancer* 47: 500-509.
- Saburi, S., et al. 2008. Loss of Fat4 disrupts PCP signaling and oriented cell division and leads to cystic kidney disease. *Nat. Genet.* 40: 1010-1015.

CHROMOSOMAL LOCATION

Genetic locus: FJX1 (human) mapping to 11p13; Fjx1 (mouse) mapping to 2 E2.

SOURCE

FJX1 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FJX1 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-167902 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

FJX1 (S-14) is recommended for detection of FJX1 of mouse, rat and human 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FJX1 siRNA (h): sc-96744, FJX1 siRNA (m): sc-145189, FJX1 shRNA Plasmid (h): sc-96744-SH, FJX1 shRNA Plasmid (m): sc-145189-SH, FJX1 shRNA (h) Lentiviral Particles: sc-96744-V and FJX1 shRNA (m) Lentiviral Particles: sc-145189-V.

Molecular Weight (predicted) of FJX1: 49 kDa.

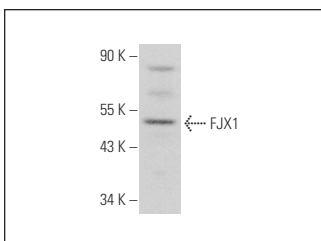
Molecular Weight (observed) of FJX1: 55 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HEK293 whole cell lysate: sc-45136 or rat brain extract: sc-2392.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



FJX1 (S-14): sc-167902. Western blot analysis of FJX1 expression in HEK293 whole cell lysate.

STORAGE

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

PROTOCOLS

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