# FJX1 (C-14): sc-167900



The Power to Question

#### **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., Alvarez-Bolado, G., Klamt, B., Gessler, M. and Gruss, P. 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., Heinrich, A.C., Schumacher, N. and Gessler, M. 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., Schrauth, S. and Gessler, M. 2005. Expression of mouse DCHS1, FJX1, and FATJ suggests conservation of the planar cell polarity pathway identified in *Drosophila*. Dev. Dyn. 234: 747-755.
- 4. Snijders, A.M., Schmidt, B.L., Fridlyand, J., Dekker, N., Pinkel, D., Jordan, R.C. and Albertson, D.G. 2005. Rare amplicons implicate frequent deregulation of cell fate specification pathways in oral squamous cell carcinoma. Oncogene 24: 4232-4242.
- Probst, B., Rock, R., Gessler, M., Vortkamp, A. and Püschel, A.W. 2007. The rodent four-jointed ortholog FJX1 regulates dendrite extension. Dev. Biol. 312: 461-470.
- Järvinen, A.K., Autio, R., Kilpinen, S., Saarela, M., Leivo, I., Grénman, R., Mäkitie, A.A. and Monni, O. 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.

#### CHROMOSOMAL LOCATION

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

#### **SOURCE**

FJX1 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FJX1 of human origin.

### **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.

#### **PRODUCT**

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, ready P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

FJX1 (C-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.

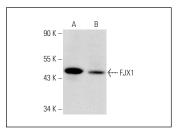
Molecular Weight (observed) of FJX1: 55 kDa.

Positive Controls: rat brain extract: sc-2392, mouse embryo extract: sc-364239 or Jurkat whole cell lysate: sc-2204.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

# DATA



FJX1 (C-14): sc-167900. Western blot analysis of FJX1 expression in rat brain (**A**) and mouse embryo (**B**)

#### **RESEARCH USE**

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