

## FRP-2 (C-18): sc-7426

### BACKGROUND

The frizzled gene, originally identified in *Drosophila melanogaster*, was shown to be involved in the development of tissue polarity. The mammalian homolog of frizzled, as well as several secreted, mammalian, frizzled-related proteins such as FRP-1 (also designated SARP2), FRP-2 (also designated SARP1), FRP-3, FRP-4 and SARP3 (also designated FRP-5), have been identified. The frizzled proteins contain seven transmembrane domains and a cysteine-rich domain in the extra carboxy-terminal Ser/Thr-xxx-Val motif, and they function as receptors for Wnt. The frizzled-1 gene maps to human chromosome 7q21 and is expressed in adult heart, placenta, lung, kidney, pancreas, prostate and ovary, as well as in fetal lung and kidney. Frizzled-2 is expressed in adult heart and fetal brain, lung and kidney. The frizzled-related proteins FRP-1, FRP-2, FRP-3, FRP-4 and SARP3 are secreted proteins that contain regions of homology to the cysteine-rich, ligand-binding domain of frizzled and a conserved, hydrophilic carboxy-terminus. The gene encoding human SARP3 maps to chromosome 4q31.3 and is expressed in retinal pigment epithelium (RPE) and pancreas, while expression of FRP-1, 2 and 4 is high in developing tissues. The FRPs/SARPs are involved in the Wnt signaling pathway by regulating the intracellular levels of  $\beta$ -catenin.

### CHROMOSOMAL LOCATION

Genetic locus: SFRP2 (human) mapping to 4q31.3; Sfrp2 (mouse) mapping to 3 E3.

### SOURCE

FRP-2 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FRP-2 of mouse origin.

### 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, sc-7426 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

FRP-2 (C-18) is recommended for detection of FRP-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

FRP-2 (C-18) is also recommended for detection of FRP-2 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for FRP-2 siRNA (h): sc-40000, FRP-2 siRNA (m): sc-40001, FRP-2 shRNA Plasmid (h): sc-40000-SH, FRP-2 shRNA Plasmid (m): sc-40001-SH, FRP-2 shRNA (h) Lentiviral Particles: sc-40000-V and FRP-2 shRNA (m) Lentiviral Particles: sc-40001-V.

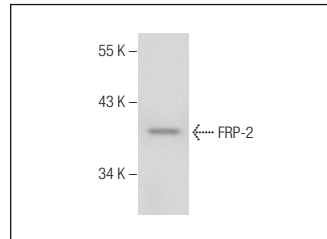
Molecular Weight of FRP-2: 37 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, MCF7 whole cell lysate: sc-2206 or U-87 MG cell lysate: sc-2411.

### STORAGE

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

### DATA



FRP-2 (C-18): sc-7426. Western blot analysis of FRP-2 expression in U-87 MG whole cell lysate.

### SELECT PRODUCT CITATIONS

- Jones, S.E., et al. 2000. Altered expression of secreted frizzled-related protein-2 in retinitis pigmentosa retinas. *Invest. Ophthalmol. Vis. Sci.* 41: 1297-1301.
- Tebar, M., et al. 2001. Expression of TCF/LEF and sFRP and localization of  $\beta$ -catenin in the developing mouse lung. *Mech. Dev.* 109: 437-440.
- Hou, X., et al. 2004. Canonical Wnt signaling is critical to estrogen-mediated uterine growth. *Mol. Endocrinol.* 18: 3035-3049.
- Fujino, R.S., et al. 2006. Spermatogonial cell-mediated activation of an I $\kappa$ B- $\zeta$ -independent nuclear factor- $\kappa$ B pathway in Sertoli cells induces transcription of the lipocalin-2 gene. *Mol. Endocrinol.* 20: 904-915.
- Kasaai, B., et al. 2012. Spatial and temporal localization of WNT signaling proteins in a mouse model of distraction osteogenesis. *J. Histochem. Cytochem.* 60: 219-228.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **FRP-2 (C-4): sc-365524**, our highly recommended monoclonal alternative to FRP-2 (C-18).