

frizzled-9 (C-14): sc-33509

BACKGROUND

The frizzled gene, originally identified in *Drosophila melanogaster*, is involved in the development of tissue polarity. The mammalian homolog of frizzled as well as several secreted mammalian frizzled-related proteins (FRPs) have been described. The frizzled proteins contain seven transmembrane domains, a cysteine-rich domain in the extracellular region and a carboxy terminal Ser/Thr-xxx-Val motif. They function as receptors for Wnt and are generally coupled to G proteins. The frizzled-9 gene is located within the Williams syndrome common deleted region at chromosomal band 7q11.23. Heterozygous deletion of the frizzled-9 gene may contribute to the Williams syndrome phenotype. In mouse, frizzled-9 overexpression can induce the hyperphosphorylation and relocalization of Dvl-1 from the cytoplasm to the cell membrane and cytosolic β -catenin accumulation. In rat, frizzled-9 is important in Wnt/ β -catenin signaling in 293T cells. Frizzled-9 is expressed predominantly in brain, testis, eye, skeletal muscle, and kidney.

REFERENCES

1. Wang, Y., et al. 1996. A large family of putative transmembrane receptors homologous to the product of the *Drosophila* tissue polarity gene frizzled. *J. Biol. Chem.* 271: 4468-4476.
2. Yang-Snyder, J., et al. 1996. A frizzled homolog functions in a vertebrate Wnt signaling pathway. *Curr. Biol.* 6: 1302-1306.
3. Rattner, A., et al. 1997. A family of secreted proteins contains homology to the cysteine-rich ligand-binding domain of frizzled receptors. *Proc. Natl. Acad. Sci. USA* 94: 2859-2863.
4. Finch, P.W., et al. 1997. Purification and molecular cloning of a secreted, frizzled-related antagonist of Wnt action. *Proc. Natl. Acad. Sci. USA* 94: 6770-6775.
5. Melkonyan, H.S., et al. 1997. SARPs: a family of secreted apoptosis-related proteins. *Proc. Natl. Acad. Sci. USA* 94: 13636-13641.

CHROMOSOMAL LOCATION

Genetic locus: FZD9 (human) mapping to 7q11.23; Fzd9 (mouse) mapping to 5 G2.

SOURCE

frizzled-9 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of frizzled-9 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-515648 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

frizzled-9 (C-14) is recommended for detection of frizzled-9 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

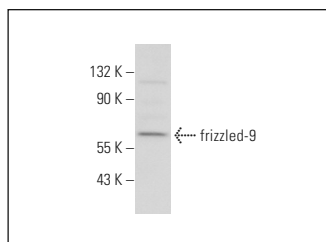
frizzled-9 (C-14) is also recommended for detection of frizzled-9 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for frizzled-9 siRNA (h): sc-39994, frizzled-9 siRNA (m): sc-39995, frizzled-9 shRNA Plasmid (h): sc-39994-SH, frizzled-9 shRNA Plasmid (m): sc-39995-SH, frizzled-9 shRNA (h) Lentiviral Particles: sc-39994-V and frizzled-9 shRNA (m) Lentiviral Particles: sc-39995-V.

Molecular Weight of frizzled-9: 65 kDa.

Positive Controls: F9 cell lysate: sc-2245 or Y79 cell lysate: sc-2240.

DATA



frizzled-9 (C-14): sc-33509. Western blot analysis of frizzled-9 expression in Y79 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Ozeki, N., et al. 2015. Polyphosphate-induced matrix metalloproteinase-3-mediated proliferation in rat dental pulp fibroblast-like cells is mediated by a Wnt5 signaling cascade. *Biosci. Trends* 9: 160-168.
2. Ozeki, N., et al. 2016. Wnt16 signaling is required for IL-1 β -induced matrix metalloproteinase-13-regulated proliferation of human stem cell-derived osteoblastic cells. *Int. J. Mol. Sci.* 17: 221.

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.