SANTA CRUZ BIOTECHNOLOGY, INC.

frizzled-6 (E-19): sc-32148

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Frizzled-6 (FZD6, also known as frizzled homolog 6 in *Drosophila*) is a seven-transmembrane domain receptor that binds the Wnt ligand and influences macroscopic hair patterning and other tissue polarity events. Frizzled-6 protein contains a signal peptide and a cysteine-rich domain (CRD) in the N-terminal extracellular region, and does not contain a C-terminal PDZ domain-binding motif. Frizzled-3 and frizzled-6 influence neural tube closure and the planar orientation of hair bundles on a subset of auditory and vestibular sensory cells. Madin-Darby canine kidney (MDCK) cells are competent to form tubules *in vitro* and express the frizzled-6 receptor, which is known to form a complex with Wnt-4 through the CRD in this cell type. Frizzled-6 is expressed as a 4.4 kb mRNA in various human tissues, including adult heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, thymus, prostate, testis, ovary, small intestine and colon.

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.
6. Sagara, N., et al. 1998. Molecular cloning, differential expression, and chromosomal localization of human frizzled-1, frizzled-2, and frizzled-7. Biochem. Biophys. Res. Commun. 252: 117-122.

CHROMOSOMAL LOCATION

Genetic locus: FZD6 (human) mapping to 8q22.3; Fzd6 (mouse) mapping to 15 B3.1.

SOURCE

frizzled-6 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of frizzled-6 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-32148 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

frizzled-6 (E-19) is recommended for detection of frizzled-6 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

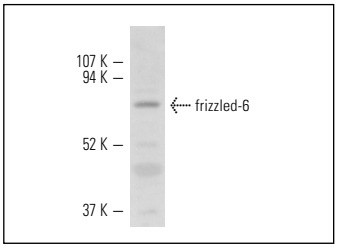
frizzled-6 (E-19) is also recommended for detection of frizzled-6 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for frizzled-6 siRNA (h): sc-39987, frizzled-6 siRNA (m): sc-39989, frizzled-6 shRNA Plasmid (h): sc-39987-SH, frizzled-6 shRNA Plasmid (m): sc-39989-SH, frizzled-6 shRNA (h) Lentiviral Particles: sc-39987-V and frizzled-6 shRNA (m) Lentiviral Particles: sc-39989-V.

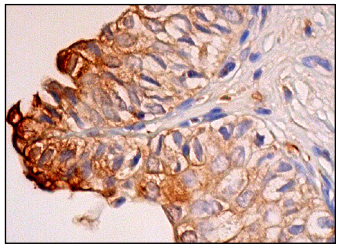
Molecular Weight of frizzled-6: 79 kDa.

Positive Controls: rat skeletal muscle extract: sc-sc-364810.

DATA



frizzled-6 (E-19): sc-32148. Western blot analysis of frizzled-6 expression in rat skeletal muscle tissue extract.



frizzled-6 (E-19): sc-32148. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing membrane and cytoplasmic staining of urothelial cells.

SELECT PRODUCT CITATIONS

1. Honda, T., et al. 2010. PDZRN3 negatively regulates BMP-2-induced osteoblast differentiation through inhibition of Wnt signaling. Mol. Biol. Cell 21: 3269-3277.

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.