

Wnt-14 (P-13): sc-20266

BACKGROUND

The Wnt genes encode a family of secreted extracellular signaling glycoproteins, which function in a variety of important developmental processes such as regulation of cell growth and differentiation. Wnt proteins also play roles in carcinogenesis. Wnt-14 rather than Wnt-15 is preferentially expressed in various types of human cancer and is upregulated by IFN γ , but not by TNF α in cells derived from gastric cancer. Wnt-15 is expressed in fetal and adult kidney and is most homologous to Wnt-14. Wnt-16, another member in the Wnt family, has two mRNA isoforms, Wnt-16A and Wnt-16B. These isoforms differ in the composition of their 5'UTR and first exon, which results in differential expression. Wnt-16A is expressed only on the pancreas, whereas Wnt-16B is highly expressed in adult kidney, placenta, brain, heart and spleen, but not in bone marrow. However, Wnt-16 transcripts are present in bone marrow and cell lines derived from pre-B acute lymphoblastoid leukemias patients carrying the E2A-Pbx1 hybrid gene. Thus, WNT-16 is a downstream target of E2A-Pbx1, and the Wnt-16-mediated autocrine growth mechanism may contribute to the development of t(1;19) pre-B acute lymphoblastoid leukemias.

REFERENCES

1. Bergstein, I., et al. 1997. Isolation of two novel WNT genes, WNT14 and WNT15, one of which (WNT15) is closely linked to WNT3 on human chromosome 17q21. *Genomics* 46: 450-458.
2. McWhirter, J.R., et al. 1999. Oncogenic homeodomain transcription factor E2A-Pbx1 activates a novel WNT gene in pre-B acute lymphoblastoid leukemia. *Proc. Natl. Acad. Sci. USA* 96: 11464-11469.
3. Fear, M.W., et al. 2000. Wnt-16a, a novel Wnt-16 isoform, which shows differential expression in adult human tissues. *Biochem. Biophys. Res. Comm.* 278: 814-820.
4. Kirikoshi, H., et al. 2001. Expression of WNT14 and WNT14B mRNAs in human cancer, up-regulation of WNT14 by IFN γ and up-regulation of WNT14B by β -estradiol. *Int. J. Oncol.* 19: 1221-1225.
5. Kirikoshi, H., et al. 2001. Molecular cloning and characterization of WNT14B, a novel member of the WNT gene family. *Int. J. Oncol.* 19: 947-952.

SOURCE

Wnt-14 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Wnt-14 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-20266 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

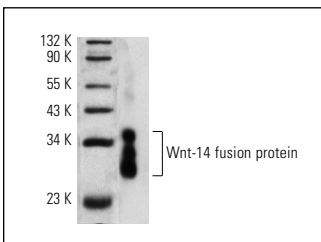
Wnt-14 (P-13) is recommended for detection of Wnt-14 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 μ g per 100–500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

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



Wnt-14 (P-13): sc-20266. Western blot analysis of human recombinant Wnt-14 fusion protein.

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.