

# Wnt-10b (N-19): sc-6546

## BACKGROUND

Products of the highly conserved Wnt gene family play key roles in regulating cellular growth and differentiation. The prototype member of the Wnt gene family, Wnt-1, is a cysteine-rich secreted glycoprotein that associates with cell membranes and likely functions as a key regulator of cellular adhesion.  $\beta$ -catenin, a cadherin-binding cellular adhesion protein that also binds to the tumor suppressor gene APC, has been identified as a downstream target of a signal transduction pathway mediated by Wnt-1. Wnt-1 is essential for normal development of the embryonic nervous system and its expression is normally limited to the embryonic neural tube and adult spermatids. Wnt family members have been shown to interact with Sonic hedgehog (Shh) *in vivo* to induce myogenesis in somitic tissue. Wnt-10b has been implicated along with FGF-3 in the development of mouse mammary tumor virus induced mouse mammary carcinomas.

## REFERENCES

1. Nusse, R., et al. 1992. Wnt genes. *Cell* 69: 1073-1087.
2. Hinck, L., et al. 1994.  $\beta$ -catenin: a common target for the regulation of cell adhesion by Wnt-1 and Src signaling pathways. *Trends Biochem. Sci.* 19: 538-542.
3. Wong, G.T., et al. 1994. Differential transformation of mammary epithelial cells by Wnt genes. *Mol. Cell. Biol.* 14: 6278-6286.

## CHROMOSOMAL LOCATION

Genetic locus: WNT10B (human) mapping to 12q13.12; Wnt10b (mouse) mapping to 15 F1.

## SOURCE

Wnt-10b (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Wnt-10b 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-6546 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Wnt-10b (N-19) is recommended for detection of Wnt-10b of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Wnt-10b siRNA (h): sc-37185, Wnt-10b siRNA (m): sc-37186, Wnt-10b shRNA Plasmid (h): sc-37185-SH, Wnt-10b shRNA Plasmid (m): sc-37186-SH, Wnt-10b shRNA (h) Lentiviral Particles: sc-37185-V and Wnt-10b shRNA (m) Lentiviral Particles: sc-37186-V.

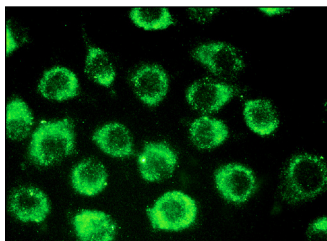
Molecular Weight of Wnt-10b: 43 kDa.

Positive Controls: rat heart extract: sc-2393.

## STORAGE

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

## DATA



Wnt-10b (N-19): sc-6546. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Rhee, C.S., et al. 2002. Wnt and frizzled receptors as potential targets for immunotherapy in head and neck squamous cell carcinomas. *Oncogene* 21: 6598-6605.
2. Kameya, S., et al. 2002. Mfrp, a gene encoding a frizzled related protein, is mutated in the mouse retinal degeneration 6. *Hum. Mol. Genet.* 11: 1879-1886.
3. Dorrell, M.I., et al. 2002. Retinal vascular development is mediated by endothelial filopodia, a preexisting astrocytic template and specific R-cadherin adhesion. *Invest. Ophthalmol. Vis. Sci.* 43: 3500-3510.
4. Nadiri, A., et al. 2004. Immunolocalization of BMP-2/-4, FGF-4, and Wnt-10b in the developing mouse first lower molar. *J. Histochem. Cytochem.* 52: 103-112.
5. Ouji, Y., et al. 2006. Wnt-10b secreted from lymphocytes promotes differentiation of skin epithelial cells. *Biochem. Biophys. Res. Commun.* 342: 1063-1069.
6. Yang, H., et al. 2009. Axin expression in thymic stromal cells contributes to an age-related increase in thymic adiposity and is associated with reduced thymopoiesis independently of ghrelin signaling. *J. Leukoc. Biol.* 85: 928-938.
7. Tong, J., et al. 2011. Lamin A/C deficiency is associated with fat infiltration of muscle and bone. *Mech. Ageing Dev.* 132: 552-559.

## RESEARCH USE

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


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Try **Wnt-10b (5A7F12/6C6A12): sc-517195**, our highly recommended monoclonal alternative to Wnt-10b (N-19).