

Wnt-10a (H-77): sc-292332

BACKGROUND

The Wnt family of protooncogenes consists of at least 13 known members which encode secreted signaling proteins that are involved in oncogenesis and several other developmental processes, such as regulation of cell fate and embryogenesis. Wnt-10a (wingless-type MMTV integration site family, member 10A) is a 417 amino acid protein that is secreted into the extracellular matrix and belongs to the Wnt family. Strongly expressed in promyelocytic leukemia and Burkitt's lymphoma, Wnt-10a functions as a ligand for frizzled proteins and is thought to be involved in development of the central nervous system, probably acting as a signaling molecule. Overexpression of Wnt-10a is associated with the pathogenesis of various carcinomas, strongly suggesting a role for Wnt-10a in tumor development and metastasis. Defects in the gene encoding Wnt-10a are the cause of odonto-onycho-dermal dysplasia (OODD), a rare autosomal recessive disorder that is characterized by dry hair, onychodysplasia and hyperkeratosis of the skin.

REFERENCES

1. Tanaka, K., et al. 2000. The evolutionarily conserved porcupine gene family is involved in the processing of the Wnt family. *Eur. J. Biochem.* 267: 4300-4311.
2. Kirikoshi, H., et al. 2001. WNT10A and WNT6, clustered in human chromosome 2q35 region with head-to-tail manner, are strongly coexpressed in SW480 cells. *Biochem. Biophys. Res. Commun.* 283: 798-805.
3. Katoh, Y., et al. 2005. Identification and characterization of rat Wnt6 and Wnt10a genes in silico. *Int. J. Mol. Med.* 15: 527-531.
4. Adaimy, L., et al. 2007. Mutation in WNT10A is associated with an autosomal recessive ectodermal dysplasia: the odonto-onycho-dermal dysplasia. *Am. J. Hum. Genet.* 81: 821-828.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 606268. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Gelebart, P., et al. 2008. Constitutive activation of the Wnt canonical pathway in mantle cell lymphoma. *Blood* 112: 5171-5179.
7. Okoye, U.C., et al. 2008. Wnt and Frizzled RNA expression in human mesenchymal and embryonic (H7) stem cells. *J. Mol. Signal.* 3: 16.
8. Itoh, T., et al. 2009. Inducible expression of Wnt genes during adult hepatic stem/progenitor cell response. *FEBS Lett.* 583: 777-781.
9. Witte, F., et al. 2009. Comprehensive expression analysis of all Wnt genes and their major secreted antagonists during mouse limb development and cartilage differentiation. *Gene Expr. Patterns* 9: 215-223.

CHROMOSOMAL LOCATION

Genetic locus: WNT10A (human) mapping to 2q35; Wnt10a (mouse) mapping to 1 C3.

SOURCE

Wnt-10a (H-77) is a rabbit polyclonal antibody raised against amino acids 153-229 mapping within an internal region of Wnt-10a 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.

APPLICATIONS

Wnt-10a (H-77) is recommended for detection of Wnt-10a 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Wnt-10a (H-77) is also recommended for detection of Wnt-10a in additional species, including bovine and canine.

Suitable for use as control antibody for Wnt-10a siRNA (h): sc-76927, Wnt-10a siRNA (m): sc-76928, Wnt-10a shRNA Plasmid (h): sc-76927-SH, Wnt-10a shRNA Plasmid (m): sc-76928-SH, Wnt-10a shRNA (h) Lentiviral Particles: sc-76927-V and Wnt-10a shRNA (m) Lentiviral Particles: sc-76928-V.

Molecular Weight of Wnt-10a: 46 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



MONOS
Satisfation
Guaranteed

Try **Wnt-10a (A-4): sc-376028** or **Wnt-10a (C-9): sc-376029**, our highly recommended monoclonal alternatives to Wnt-10a (H-77).