SANTA CRUZ BIOTECHNOLOGY, INC.

Wnt-10a (C-9): sc-376029

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Wnt-10a 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 Wnt-10a genes in silico. Int. J. Mol. Med. 15: 527-531.
4. Adaimy, L., et al. 2007. Mutation in Wnt-10a 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.

CHROMOSOMAL LOCATION

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

SOURCE

Wnt-10a (C-9) is a mouse monoclonal 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_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Wnt-10a (C-9) is recommended for detection of Wnt-10a of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

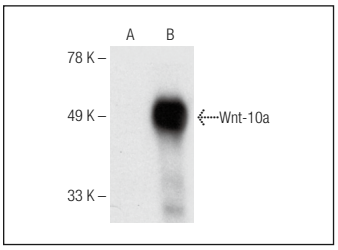
Molecular Weight of Wnt-10a: 46 kDa.

Positive Controls: human Wnt-10a transfected HEK293T whole cell lysate or Raji whole cell lysate: sc-364236.

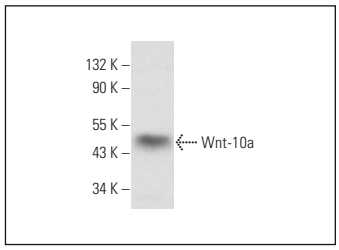
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Wnt-10a (C-9): sc-376029. Western blot analysis of Wnt-10a expression in non-transfected (**A**) and human Wnt-10a transfected (**B**) HEK293T whole cell lysates.



Wnt-10a (C-9): sc-376029. Western blot analysis of Wnt-10a expression in Raji whole cell lysate.

SELECT PRODUCT CITATIONS

1. Zhang, H., et al. 2019. Upregulation of miR-33b promotes endometriosis via inhibition of Wnt/β-catenin signaling and ZEB1 expression. Mol. Med. Rep. 19: 2144-2152.
2. Esmail, M.M., et al. 2021. The ameliorative effect of niclosamide on bile duct ligation induced liver fibrosis via suppression of NOTCH and Wnt pathways. Toxicol. Lett. 347: 23-35.

RESEARCH USE

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