SANTA CRUZ BIOTECHNOLOGY, INC.

Wnt-2b (C-2): sc-166502

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Wnt family of proto-oncogenes 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-2b (wingless-type MMTV integration site family, member 2B), also known as WNT13 or XWNT2, is a 391 amino acid protein that is secreted into the extracellular matrix and belongs to the Wnt family. Expressed as two isoforms, the first of which is present primarily in adult tissues and the second of which is present primarily in fetal tissues, Wnt-2b functions as a ligand for transmembrane receptor proteins and is thought to play a role in tissue differentiation and development. Wnt-2b is expressed in a variety of cancer cell lines, suggesting a role in tumorigenesis.

REFERENCES

1. Wolda, S.L. and Moon, R.T. 1992. Cloning and developmental expression in *Xenopus laevis* of seven additional members of the Wnt family. Oncogene 7: 1941-1947.
2. Smolich, B.D., et al. 1993. Wnt family proteins are secreted and associated with the cell surface. Mol. Biol. Cell 4: 1267-1275.
3. Katoh, M., et al. 1996. Cloning, expression and chromosomal localization of Wnt-13, a novel member of the Wnt gene family. Oncogene 13: 873-876.
4. Katoh, M., et al. 2000. Alternative splicing of the Wnt-2b/WNT-13 gene. Biochem. Biophys. Res. Commun. 275: 209-216.

CHROMOSOMAL LOCATION

Genetic locus: WNT2B (human) mapping to 1p13.2; Wnt2b (mouse) mapping to 3 F2.2.

SOURCE

Wnt-2b (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 263-301 within an internal region of Wnt-2b of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Wnt-2b (C-2) is available conjugated to agarose (sc-166502 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166502 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166502 PE), fluorescein (sc-166502 FITC), Alexa Fluor® 488 (sc-166502 AF488), Alexa Fluor® 546 (sc-166502 AF546), Alexa Fluor® 594 (sc-166502 AF594) or Alexa Fluor® 647 (sc-166502 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166502 AF680) or Alexa Fluor® 790 (sc-166502 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166502 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

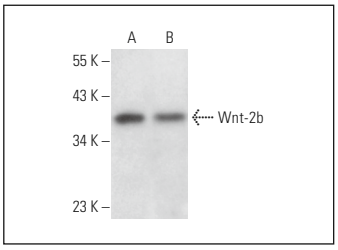
Wnt-2b (C-2) is recommended for detection of Wnt-2b of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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-2b siRNA (h): sc-78902, Wnt-2b siRNA (m): sc-155356, Wnt-2b shRNA Plasmid (h): sc-78902-SH, Wnt-2b shRNA Plasmid (m): sc-155356-SH, Wnt-2b shRNA (h) Lentiviral Particles: sc-78902-V and Wnt-2b shRNA (m) Lentiviral Particles: sc-155356-V.

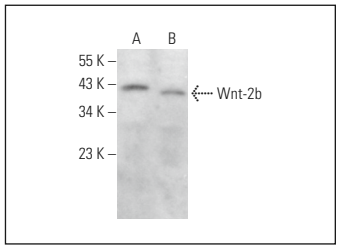
Molecular Weight (predicted) of Wnt-2b: 44 kDa.

Molecular Weight (observed) of Wnt-2b: 38 kDa.

DATA



Wnt-2b (C-2): sc-166502. Western blot analysis of Wnt-2b expression in Jurkat (**A**) and SUP-T1 (**B**) whole cell lysates.



Wnt-2b (C-2): sc-166502. Western blot analysis of Wnt-2b expression in c4 (**A**) and Neuro-2A (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chang, J., et al. 2020. Long non-coding RNA CDKN2B-AS1 regulates high glucose-induced human mesangial cell injury via regulating the miR-15b-5p/ Wnt-2b axis. Diabetol. Metab. Syndr. 12: 109.
2. Jiang, Y., et al. 2021. Promotion of epithelial-mesenchymal transformation by hepatocellular carcinoma-educated macrophages through Wnt2b/ β-catenin/c-Myc signaling and reprogramming glycolysis. J. Exp. Clin. Cancer Res. 40: 13.
3. Fu, Y., et al. 2024. Proteomic characterization of the medial prefrontal cortex in chronic restraint stress mice. J. Proteomics 307: 105278.

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 for detailed protocols and support products.