SANTA CRUZ BIOTECHNOLOGY, INC.

WISP-2 (B-5): sc-514070

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Wnt-induced secreted protein (WISP)-1 and WISP-2 are members of the CCN family of growth factors, which include connective tissue growth factor (CTGF) and Cyr61. WISP-1, WISP-2, and WISP-3 share significant sequence similarity, including four conserved cysteine-rich domains, and they are believed to function as dimers in their active forms. WISP-1 expression is observed in various tissues including adult heart, kidney and spleen, while WISP-2 expression predominates in skeletal muscle, colon and ovary. Both WISP-1 and WISP-2 are upregulated in cells transformed with the proto-oncogene Wnt-1, and they are also more highly expressed in human colon tumors, suggesting that these proteins may participate in tumor development. WISP-3 is involved in normal postnatal skeletal growth, and it is also implicated in the development of the autosomal recessive skeletal disorder progressive pseudorheumatoid dysplasia, which affects cartilage homeostasis by disrupting the growth of chondrocyte and normal cell columnar organization.

CHROMOSOMAL LOCATION

Genetic locus: WISP2 (human) mapping to 20q13.12.

SOURCE

WISP-2 (B-5) is a mouse monoclonal antibody raised against amino acids 57-130 of WISP-2 of human origin.

PRODUCT

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

WISP-2 (B-5) is available conjugated to agarose (sc-514070 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514070 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514070 PE), fluorescein (sc-514070 FITC), Alexa Fluor® 488 (sc-514070 AF488), Alexa Fluor® 546 (sc-514070 AF546), Alexa Fluor® 594 (sc-514070 AF594) or Alexa Fluor® 647 (sc-514070 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514070 AF680) or Alexa Fluor® 790 (sc-514070 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

WISP-2 (B-5) is recommended for detection of WISP-2 of 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 WISP-2 siRNA (h): sc-39337, WISP-2 shRNA Plasmid (h): sc-39337-SH and WISP-2 shRNA (h) Lentiviral Particles: sc-39337-V.

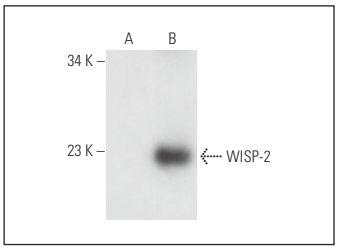
Molecular Weight of WISP-2: 31 kDa.

Positive Controls: WISP-2 (h2): 293T Lysate: sc-116953.

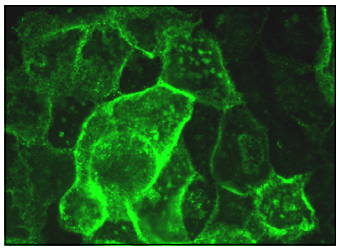
RECOMMENDED SUPPORT REAGENTS

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



WISP-2 (B-5): sc-514070. Western blot analysis of WISP-2 expression in non-transfected: sc-117752 (**A**) and human WISP-2 transfected: sc-116953 (**B**) 293T whole cell lysates.



WISP-2 (B-5): sc-514070. Immunofluorescence staining of formalin-fixed A-431 cells showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Qin, D., et al. 2017. Wisp2 disruption represses Cxcr4 expression and inhibits BMSCs homing to injured liver. Oncotarget 8: 98823-98836.
2. Ren, L., et al. 2020. A novel mechanism of bta-miR-210 in bovine early intramuscular adipogenesis. Genes 11: 601.
3. Zhang, H., et al. 2023. Acetylation stabilizes the signaling protein WISP2 by preventing its degradation to suppress the progression of acute myeloid leukemia. J. Biol. Chem. 299: 102971.
4. Zheng, D., et al. 2023. ERα prevents tumorigenesis of both liver and breast cancer cells through CCN5. Biochem. Biophys. Res. Commun. 672: 103-112.

STORAGE

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

PROTOCOLS

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