SANTA CRUZ BIOTECHNOLOGY, INC.

WISP-1 (C-2): sc-133198

BACKGROUND

Wnt-induced secreted protein (WISP)-1, WISP-2 and WISP-3 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.

REFERENCES

1. Shimizu, H., et al. 1997. Transformation by Wnt family proteins correlates with regulation of β-catenin. Cell Growth Differ. 8: 1349-1358.
2. el-Shanti, H.E., et al. 1997. Progressive pseudo-rheumatoid dysplasia: report of a family and review. J. Med. Genet. 34: 559-563.
3. Pennica, D., et al. 1998. WISP genes are members of the connective tissue growth factor family that are upregulated in Wnt-1-transformed cells and aberrantly expressed in human colon tumors. Proc. Natl. Acad. Sci. USA 95: 14717-14722.
4. Hurvitz, J.R., et al. 1999. Mutations in the CCN gene family member WISP-3 cause progressive pseudorheumatoid dysplasia. Nat. Genet. 23: 94-98.
5. Babic, A.M., et al. 1999. Fisp12/mouse connective tissue growth factor mediates endothelial cell adhesion and migration through integrin $\alpha_v\beta_3$, promotes endothelial cell survival, and induces angiogenesis *in vivo*. Mol. Cell. Biol. 19: 2958-2966.

CHROMOSOMAL LOCATION

Genetic locus: WISP1 (human) mapping to 8q24.22.

SOURCE

WISP-1 (C-2) is a mouse monoclonal antibody raised against amino acids 311-367 of WISP-1 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.

STORAGE

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

APPLICATIONS

WISP-1 (C-2) is recommended for detection of WISP-1 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-1 siRNA (h): sc-39335, WISP-1 shRNA Plasmid (h): sc-39335-SH and WISP-1 shRNA (h) Lentiviral Particles: sc-39335-V.

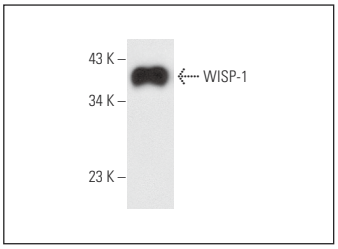
Molecular Weight of WISP-1: 34 kDa.

Positive Controls: JAR cell lysate: sc-2276, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

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-1 (C-2): sc-133198. Western blot analysis of human recombinant WISP-1.

SELECT PRODUCT CITATIONS

1. Wei, F., et al. 2021. RNF180 inhibits proliferation and promotes apoptosis of colorectal cancer through ubiquitination of WISP-1. Front. Cell Dev. Biol. 8: 623455.

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.