SANTA CRUZ BIOTECHNOLOGY, INC.

WISP-3 (H-65): sc-25443

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 post-natal 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 pseudorheumatoid 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 up-regulated in Wnt-1-transformed cells and aberrantly expressed in human colon tumors. Proc. Natl. Acad. Sci. USA 95: 14717-14722.
4. Babic, A.M., et al. 1999. Fisp12/mouse connective tissue growth factor mediates endothelial cell adhesion and migration through Integrin αV/β3, promotes endothelial cell survival, and induces angiogenesis *in vivo*. Mol. Cell. Biol. 19: 2958-2966.

CHROMOSOMAL LOCATION

Genetic locus: WISP3 (human) mapping to 6q21; Wisp3 (mouse) mapping to 10 B1.

SOURCE

WISP-3 (H-65) is a rabbit polyclonal antibody raised against amino acids 231-295 of WISP-3 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.

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 or our catalog for detailed protocols and support products.

APPLICATIONS

WISP-3 (H-65) is recommended for detection of WISP-3 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).

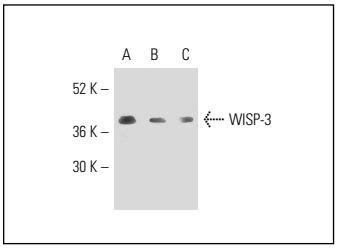
WISP-3 (H-65) is also recommended for detection of WISP-3 in additional species, including equine and porcine.

Suitable for use as control antibody for WISP-3 siRNA (h): sc-39339, WISP-3 siRNA (m): sc-39340, WISP-3 shRNA Plasmid (h): sc-39339-SH, WISP-3 shRNA Plasmid (m): sc-39340-SH, WISP-3 shRNA (h) Lentiviral Particles: sc-39339-V and WISP-3 shRNA (m) Lentiviral Particles: sc-39340-V.

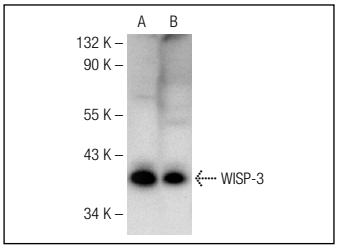
Molecular Weight of WISP-3: 39 kDa.

Positive Controls: Rat testis extract: sc-2400, COLO 320DM cell lysate: sc-2226 or F9 cell lysate: sc-2245.

DATA



WISP-3 (H-65): sc-25443. Western blot analysis of WISP-3 expression in COLO 320DM (**A**) and F9 (**B**) whole cell lysates and rat testis tissue extract (**C**).



WISP-3 (H-65): sc-25443. Western blot analysis of WISP-3 expression in Caki-1 (**A**) and F9 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Davies, S.R., et al. 2007. Differential expression and prognostic implications of the CCN family members WISP-1, WISP-2, and WISP-3 in human breast cancer. Ann. Surg. Oncol. 14: 1909-1918.
2. Kawaki, H., et al. 2008. Cooperative regulation of chondrocyte differentiation by CCN2 and CCN3 shown by a comprehensive analysis of the CCN family proteins in cartilage. J. Bone Miner. Res. 23: 1751-1764.
3. Davies, S.R., et al. 2010. Differential expression of the CCN family member WISP-1, WISP-2 and WISP-3 in human colorectal cancer and the prognostic implications. Int. J. Oncol. 36: 1129-1136.
4. Marrakchi, R., et al. 2010. Expression of WISP3 and RhoC genes at mRNA and protein levels in inflammatory and noninflammatory breast cancer in Tunisian patients. Cancer Invest. 28: 399-407.
5. Kawaki, H., et al. 2011. Differential roles of CCN family proteins during osteoblast differentiation: Involvement of Smad and MAPK signaling pathways. Bone 49: 975-989.

RESEARCH USE

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