

WISP-1 (H-55): sc-25441

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.

CHROMOSOMAL LOCATION

Genetic locus: WISP1 (human) mapping to 8q24.22; Wisp1 (mouse) mapping to 15 D2.

SOURCE

WISP-1 (H-55) is a rabbit polyclonal antibody raised against amino acids 311-367 of WISP-1 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.

APPLICATIONS

WISP-1 (H-55) is recommended for detection of WISP-1 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), immunohistochemistry (including paraffin-embedded sections) (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-1 (H-55) is also recommended for detection of WISP-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for WISP-1 siRNA (h): sc-39335, WISP-1 siRNA (m): sc-39336, WISP-1 shRNA Plasmid (h): sc-39335-SH, WISP-1 shRNA Plasmid (m): sc-39336-SH, WISP-1 shRNA (h) Lentiviral Particles: sc-39335-V and WISP-1 shRNA (m) Lentiviral Particles: sc-39336-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.

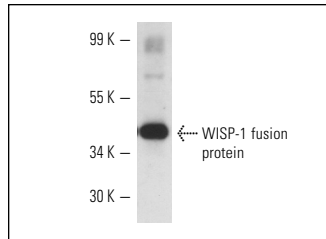
STORAGE

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

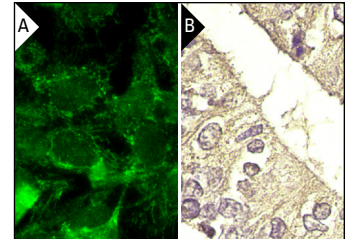
RESEARCH USE

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

DATA



WISP-1 (H-55): sc-25441. Western blot analysis of human recombinant WISP-1.



WISP-1 (H-55): sc-25441. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tumor tissue showing extracellular localization (B).

SELECT PRODUCT CITATIONS

- Shitashige, M., et al. 2007. Involvement of splicing factor-1 in β -catenin/T-cell factor-4-mediated gene transactivation and pre-mRNA splicing. *Gastroenterology* 132: 1039-1054.
- Venkatesan, B., et al. 2010. WNT1-inducible signaling pathway protein-1 activates diverse cell survival pathways and blocks doxorubicin-induced cardiomyocyte death. *Cell. Signal.* 22: 809-820.
- Tang, Q., et al. 2011. Expression and prognostic value of WISP-1 in patients with endometrial endometrioid adenocarcinoma. *J. Obstet. Gynaecol. Res.* 37: 606-612.
- 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.
- Berendsen, A.D., et al. 2011. Modulation of canonical Wnt signaling by the extracellular matrix component biglycan. *Proc. Natl. Acad. Sci. USA* 108: 17022-17027.
- Nagai, Y., et al. 2011. Clinical significance of Wnt-induced secreted protein-1 (WISP-1/CCN4) in esophageal squamous cell carcinoma. *Anticancer Res.* 31: 991-997.
- Shao, H., et al. 2011. Activation of Notch1 signaling in stromal fibroblasts inhibits melanoma growth by upregulating WISP-1. *Oncogene* 30: 4316-4326.


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Try **WISP-1 (A-9): sc-133126** or **WISP-1 (C-2): sc-133198**, our highly recommended monoclonal alternatives to WISP-1 (H-55).