

Dkk-3 (H-130): sc-25518

BACKGROUND

The Wnt genes are a group of well conserved, cysteine-rich secreted glycoproteins that are required for numerous developmental processes including embryogenesis, asymmetric cell division and central nervous system (CNS) patterning. Wnt association with the seven membrane spanning receptor frizzled, activates dishevelled, which downregulates glycogen synthase kinase (GSK) through serine phosphorylation, causing the accumulation of β -catenin and subsequent regulation of developmentally significant Wnt target genes. The Dickkopf family of secreted inhibitors of Wnt signaling ensures proper morphological development by antagonizing different stages of the Wnt cascade. Dkk-3 (Dickkopf-3) is a 350 amino acid secreted glycoprotein that is composed of an N-terminal signal peptide and 2 conserved cysteine-rich domains, which are separated by a 12 amino acid linker region.

REFERENCES

1. Krasnow, R.E., et al. 1995. Dishevelled is a component of the frizzled signaling pathway in *Drosophila*. *Development* 121: 4095-4102.
2. Cadigan, K.M., et al. 1997. Wnt signaling: a common theme in animal development. *Genes Dev.* 11: 3286-3305.

CHROMOSOMAL LOCATION

Genetic locus: DKK3 (human) mapping to 11p15.3; Dkk3 (mouse) mapping to 7 F1.

SOURCE

Dkk-3 (H-130) is a rabbit polyclonal antibody raised against amino acids 221-350 of Dkk-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Dkk-3 (H-130) is recommended for detection of Dkk-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Dkk-3 (H-130) is also recommended for detection of Dkk-3 in additional species, including bovine and porcine.

Suitable for use as control antibody for Dkk-3 siRNA (h): sc-41102, Dkk-3 siRNA (m): sc-41103, Dkk-3 shRNA Plasmid (h): sc-41102-SH, Dkk-3 shRNA Plasmid (m): sc-41103-SH, Dkk-3 shRNA (h) Lentiviral Particles: sc-41102-V and Dkk-3 shRNA (m) Lentiviral Particles: sc-41103-V.

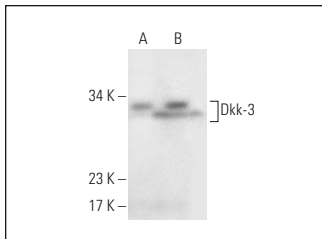
Molecular Weight of Dkk-3: 38 kDa.

Positive Controls: rat heart extract: sc-2393, A549 cell lysate: sc-2413 or H4 cell lysate: sc-2408.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Dkk-3 (H-130): sc-25518. Western blot analysis of Dkk-3 expression in H4 (A) and A549 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Kuphal, S., et al. 2006. Expression of Dickkopf genes is strongly reduced in malignant melanoma. *Oncogene* 25: 5027-5036.
2. Pei, Y., et al. 2009. Overexpression of Dickkopf-3 in hepatoblastomas and hepatocellular carcinomas. *Virchows Arch.* 454: 639-646.
3. Torres, S., et al. 2015. LOXL2 is highly expressed in cancer-associated fibroblasts and associates to poor colon cancer survival. *Clin. Cancer Res.* E-published.

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 or our catalog for detailed protocols and support products.



Try **Dkk-3 (4G7A9): sc-517200**, our highly recommended monoclonal alternative to Dkk-3 (H-130).