

Dkk-3 (C-19): sc-14959

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 two 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 11p15.2; Dkk3 (mouse) mapping to 7 F1.

SOURCE

Dkk-3 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus 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.

Blocking peptide available for competition studies, sc-14959 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dkk-3 (C-19) 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).

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.

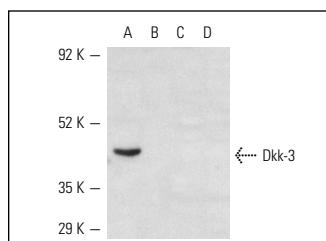
Molecular Weight of Dkk-3: 38 kDa.

Positive Controls: rat heart extract: sc-2393.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



Dkk-3 (C-19): sc-14959. Western blot analysis of Dkk-3 expression in rat heart extract (A), SK-N-SH (B), H4 (C) and BC3H1 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Suwa, T., et al. 2003. Zonal expression of Dickkopf-3 and components of the Wnt signalling pathways in the human adrenal cortex. *J. Endocrinol.* 178: 149-158.
2. Ess, K.C., et al. 2004. Expression profiling in tuberous sclerosis complex (TSC) knockout mouse astrocytes to characterize human TSC brain pathology. *Glia* 46: 28-40.
3. Ohyama, M., et al. 2006. Characterization and isolation of stem cell-enriched human hair follicle bulge cells. *J. Clin. Invest.* 116: 249-260.

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.

MONOS
Satisfaction
Guaranteed

Try **Dkk-3 (4G7A9): sc-517200**, our highly recommended monoclonal alternative to Dkk-3 (C-19).