Dkk-1 (B-7): sc-374574

**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-1 (Dickkopf-1) acts upstream of β-catenin and dishevelled to inhibit Wnt signaling. Dkk-1 is a 266-amino acid (human), secreted protein that contains a 31-residue N-terminal signal peptide, 2 cysteine rich domains, and a putative carboxy terminal N-glycosylation site. Human Dkk-1 transcripts are abundantly present in fetal kidney, adult placenta and adult prostate. Putative cis regulatory elements upstream of the Dkk-1 start site include p53, Sp1, MyoD, STAT, Oct-1/2, C/EBP-α, C/EBP-β, GATA-1, GATA-2 and GATA-3.

**APPLICATIONS**

Dkk-1 (B-7) is recommended for detection of Dkk-1 of mouse, rat and 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), 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).

Suitable for use as control antibody for Dkk-1 siRNA (h): sc-37082, Dkk-1 siRNA (m): sc-37083, Dkk-1 shRNA Plasmid (h): sc-37082-SH, Dkk-1 shRNA Plasmid (m): sc-37083-SH, Dkk-1 shRNA (h) Lentiviral Particles: sc-37082-V and Dkk-1 shRNA (m) Lentiviral Particles: sc-37083-V.

Molecular Weight of Dkk-1: 35 kDa.

Positive Controls: JEG-3 whole cell lysate: sc-364255.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: DKK1 (human) mapping to 10q21.1; Dkk1 (mouse) mapping to 19 C1.

**SOURCE**

Dkk-1 (B-7) is a mouse monoclonal antibody raised against amino acids 1-120 of Dkk-1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG; kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Dkk-1 (B-7) is available conjugated to agarose (sc-374574 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374574 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374574 PE), fluorescein (sc-374574 FITC), Alexa Fluor® 488 (sc-374574 AF488), Alexa Fluor® 546 (sc-374574 AF546), Alexa Fluor® 594 (sc-374574 AF594) or Alexa Fluor® 647 (sc-374574 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374574 AF680) or Alexa Fluor® 790 (sc-374574 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

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