

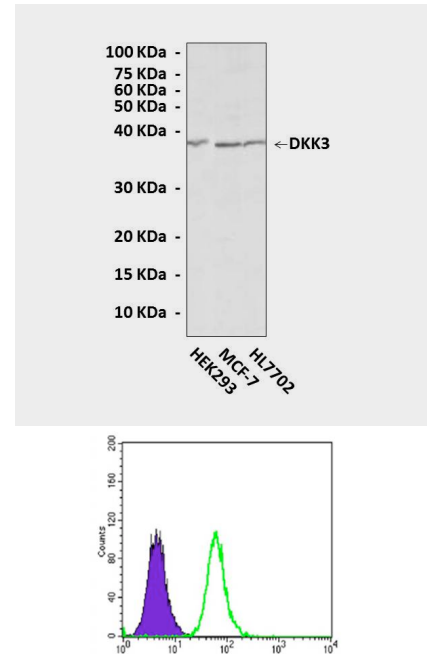
BACKGROUND

Dickkopf (DKK) family proteins, including DKK1-4, are a group of secreted glycoproteins and antagonists of Wnt signaling. DKK1, DKK2 and DKK4 interact with Wnt coreceptors low-density Lipoprotein receptor-related protein 5/6, which disrupt their bindings to the Wnt ligands.¹ DKK family members, in particular DKK3, were shown to be downregulated in a variety of tumor cells, such as those from hepatocellular carcinoma, lymphoblastic leukemia, prostate cancer, renal cell carcinoma and melanoma. Hypermethylation of DKK1 and DKK3 promoters was detected in several types of tumors.² However, the physiological relevance of altered expression of DKK family proteins in tumor formation remains unclear. Furthermore, the functional role of DKK3 in Wnt/b-catenin signaling has been obscure. While earlier studies suggested that DKK3 does not affect Wnt signaling, recent studies demonstrated that DKK3 can reduce cytoplasmic accumulation of beta-catenin in Saos-2 osteosarcoma cells and inhibit TCF-4 activity in PC12 rat pheochromocytoma cells. It was demonstrated that DKK3 can suppress lung cancer cell growth, probably through inhibiting b-catenin/TCF-4 signaling by preventing beta-catenin nuclear translocation.³

References:

1. Glinka, A. et al: Nature 391:357-62, 1998
2. Mao, B. et al: Nature 417:664-7, 2002
3. Yue, W. et al: Carcinogen. 29:84-92, 2008

QUALITY CONTROL DATA



Top: Western Blot detection of DKK3 proteins in various cell lysates using DKK3 Antibody. **Bottom:** This antibody also specifically reacts with DKK3 protein in MCF-7 cells (Green) vs. normal mouse IgG control (Purple) in FACS analysis.

TECHNICAL INFORMATION

Source:

DKK3 antibody is a mouse monoclonal antibody raised against purified recombinant human DKK3 fragments expressed in *E. coli*.

Specificity and Sensitivity:

This antibody detects endogenous DKK3 proteins without cross-reactivity with other family members.

Storage Buffer: PBS and 30% glycerol

Storage:

Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
FACS	1:200
*Optimal dilutions must be determined by end user.	

