

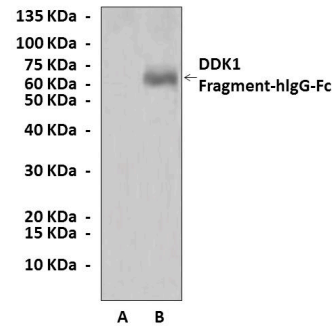
## BACKGROUND

DKK1 is a member of the dickkopf family. It is a secreted protein with two cysteine rich regions and is involved in embryonic development through its inhibition of the WNT signaling pathway.<sup>1</sup> Wnt ligands bind to the seven-transmembrane receptor, Frizzled, and the coreceptor lipoprotein-related protein 5 and 6 (LRP5/6). DKK1 forms a ternary complex with LRP5/6 and another receptor, Kremen, followed by endocytosis of this complex and removal of LRP5/6 from the cell surface. In addition to this extracellular link, there is another novel intranuclear link between Wnt signaling and its antagonist, DKK1. It was demonstrated recently that DKK1 expression can be upregulated via beta-catenin/TCF. Thus, DKK1 may participate in a novel negative feedback loop in Wnt signaling.<sup>2</sup> In the adult, DKKs are implicated in bone formation and bone disease, cancer and Alzheimer's disease. Elevated levels of DKK1 in bone marrow plasma and peripheral blood are associated with the presence of osteolytic bone lesions in patients with multiple myeloma.<sup>3</sup>

### References:

1. Glinka, A. et al: Nature 391:357-62, 1998
2. Niida, A. et al: Oncogene 23:8520-26, 2004
3. Li, J. et al: Bone 39:754-66, 2006

## QUALITY CONTROL DATA



Western Blot detection of DKK1 proteins in the cell lysates from HEK293 cells (A) or HEK293 cells transfected with human DKK1-hlgG-F fusion protein-expressing vector (B) using DKK1 Antibody.

## TECHNICAL INFORMATION

### Source:

DKK1 antibody is a mouse monoclonal antibody raised against purified recombinant human DKK1 fragment-hlgGFC fusion protein expressed in HEK293 cells.

### Specificity and Sensitivity:

This antibody detects DKK1 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
IP	n/d
IHC	n/d
ICC	n/d
FACS	n/d

*\*Optimal dilutions must be determined by end user.*

