Revision 1

Store at -20C

#4687

DKK1 Antibody

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Transfected Only	28-40	Rabbit	#O94907	22943

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

DKK1 Antibody detects transfected levels of DKK1 protein. This antibody does not cross-react with DKK2.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln75 of human DKK1. Antibodies are purified by peptide affinity chromatography.

Background

Dickkopf (DKK) family proteins consist of four members (DKK1, DKK2, DKK3, and DKK4) that function as secreted Wnt antagonists by inhibiting Wnt coreceptors LRP5 and LRP6 (1,2). DKKs contain two cysteine-rich domains in which the positions of 10 cysteine residues are well conserved (3). Their expression is both temporally and spatially regulated during animal development (4). DKKs also bind with high affinity to transmembrane proteins Kremen1 and 2, which themselves also modulate Wnt signaling (5,6).

DKK1 was initially identified as an inducer of head formation in Xenopus embryos (7) and plays an important role in the regulation of bone mass (8-10). Increased levels of DKK1 are found in the majority of lung cancers, esophageal squamous cell carcinomas, and hormone-resistant breast cancers (11,12), while DKK1 expression is decreased in malignant melanoma and colorectal cancers (13,14).

Background References

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4. Monaghan, A.P. et al. (1999) *Mech Dev* 87, 45-56.
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6. Davidson, G. et al. (2002) *Development* 129, 5587-96.
7. Glinka, A. et al. (1998) *Nature* 391, 357-62.
8. Baron, R. and Rawadi, G. (2007) *Curr Osteoporos Rep* 5, 73-80.
9. MacDonald, B.T. et al. (2007) *Bone* 41, 331-9.
10. Diarra, D. et al. (2007) *Nat Med* 13, 156-63.
11. Forget, M.A. et al. (2007) *Br J Cancer* 96, 646-53.
12. Yamabuki, T. et al. (2007) *Cancer Res* 67, 2517-25.
13. Kuphal, S. et al. (2006) *Oncogene* 25, 5027-36.
14. Aguilera, O. et al. (2006) *Oncogene* 25, 4116-21.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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