Revision 1

Store at -20C

#4687

# DKK1 Antibody

Cell Signaling TECHNOLOGY®

**Orders:** 877-616-CELL (2355)
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

**For Research Use Only. Not for Use in Diagnostic Procedures.**

| 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

1. Mao, B. et al. (2001) *Nature* 411, 321-5.
2. Niehrs, C. (2006) *Oncogene* 25, 7469-81.
3. Krupnik, V.E. et al. (1999) *Gene* 238, 301-13.
4. Monaghan, A.P. et al. (1999) *Mech Dev* 87, 45-56.
5. Mao, B. et al. (2002) *Nature* 417, 664-7.
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

## Trademarks and Patents

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

## Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.