

Non-phospho (Active) β -Catenin (Ser33/37/Thr41) Antibody



Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 10/25/17

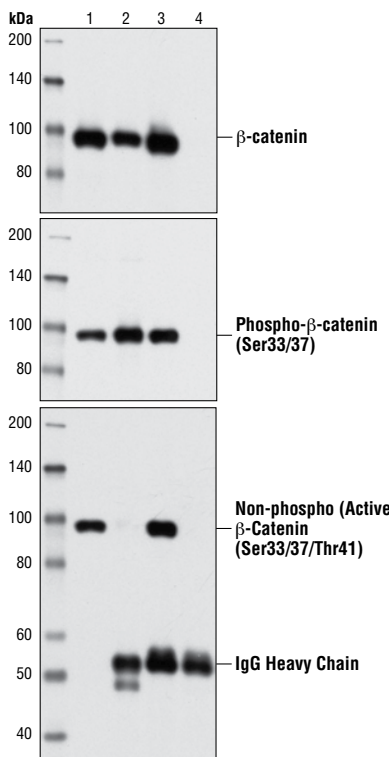
For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R, Mk, (C, X, Z, Dg)	92 kDa	Rabbit**

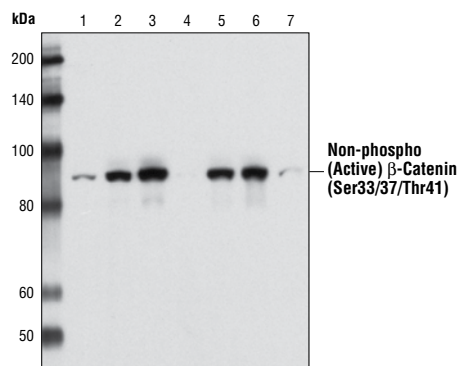
Background: β -Catenin is a key downstream effector in the Wnt signaling pathway (1). It is implicated in two major biological processes in vertebrates: early embryonic development (2) and tumorigenesis (3). CK1 phosphorylates β -catenin at Ser45. This phosphorylation event primes β -catenin for subsequent phosphorylation by GSK-3 β (4-6). GSK-3 β destabilizes β -catenin by phosphorylating it at Ser33, Ser37, and Thr41 (7). Mutations at these sites result in the stabilization of β -catenin protein levels and have been found in many tumor cell lines (8).

Specificity/Sensitivity: Non-phospho (Active) β -Catenin (Ser33/37/Thr41) (D13A1) Rabbit mAb recognizes endogenous β -catenin protein when residues Ser33, Ser37, and Thr41 are not phosphorylated. It does not detect β -catenin protein if tri-phosphorylated at Ser33/Ser37/Thr41. This antibody may also detect β -catenin protein when singly phosphorylated at Ser33. This specificity data was derived from competition ELISA and dot blot analyses using synthetic peptides.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser37 of human β -catenin. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of SW480 cells treated with Calyculin A #9902 and immunoprecipitated using Phospho- β -Catenin (Ser33/37) Antibody #2009 (Lane 2), β -Catenin Antibody (Amino-terminal Antigen) #9581 (Lane 3) and an unrelated rabbit IgG as negative control (Lane 4). The immunoprecipitates along with the input lysate (Lane 1) were subject to western analysis using β -Catenin (6B3) Rabbit mAb #9582 (upper), Phospho- β -Catenin (Ser33/37) Antibody #2009 (middle), and Non-phospho (Active) β -Catenin (Ser33/37/Thr41) Antibody (lower).



Western blot analysis of total SW480 cell lysates using Non-phospho (Active) β -Catenin (Ser33/37/Thr41) Antibody in the presence of a non-phospho- β -catenin peptide (Lane 4) and various peptides phosphorylated at different positions, including phospho- β -catenin (Ser33) peptide (Lane 1), phospho- β -catenin (Ser33/37) peptide (Lane 2), phospho- β -catenin (Ser33/37/Thr41) peptide (Lane 3), phospho- β -catenin (Ser37) peptide (Lane 5), phospho- β -catenin (Ser37/Thr41) peptide (Lane 6), and phospho- β -catenin (Thr41) peptide (Lane 7).

Entrez-Gene ID #1499
Swiss-Prot Acc. #P35222

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

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

- (1) Cadigan, K.M. and Nusse, R. (1997) *Genes Dev.* 11, 3286-3305.
- (2) Wodarz, A. and Nusse, R. (1998) *Annu. Rev. Cell. Dev. Biol.* 14, 59-88.
- (3) Polakis, P. (1999) *Curr. Opin. Genet. Dev.* 9, 15-21.
- (4) Amit, S. et al. (2002) *Genes Dev.* 16, 1066-1076.
- (5) Lin, C. et al. (2002) *Cell* 108, 837-847.
- (6) Yanagawa, S. et al. (2002) *EMBO J.* 21, 1733-1742.
- (7) Yost, C. et al. (1996) *Genes Dev.* 10, 1443-1454.
- (8) Morin, P.J. (1997) *Science* 275, 1787-1790.

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

Tween® is a registered trademark of ICI Americas, Inc.