SignalChem
Specialists in Signaling Proteins
1-866-9 KINASE (54-6273)

Catalogue #	Aliquot Size
C06-365R-100	100 µl

Anti-phospho-Catenin beta (Ser33 Ser37)

Rabbit Polyclonal Antibody

Catalog # C06-365R

Lot # J1274-7

Cited Applications

WB

Suggested Dilutions:
WB 1:1,000

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the beta-catenin protein phosphorylated at serine 33/37

Cross Reactivity

Human, Mouse, Rat andXenopus

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser33/37 conjugated to KLH

Formulation

100 µl in 10 mM HEPES (pH 7.5), 150 mMNaCl, 100 µg per ml BSA and 50% glycerol.

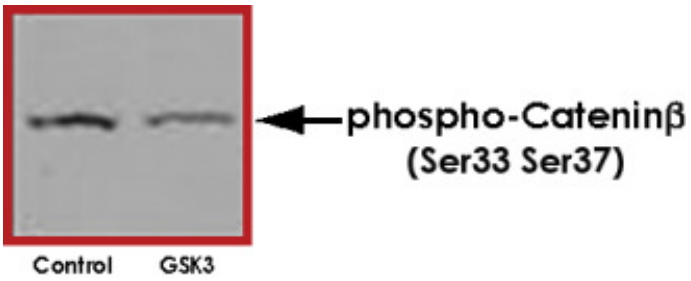
Scientific Background

Beta-catenins are ubiquitously expressed cytoplasmic proteins. They associate with E-cadherin and thus represent central components of the cadherin cell adhesion complex (1). beta-catenin interacts with TCF and LEF transcription factors and are essential for neural development in the Wingless/Wnt signaling pathway (2). The adenomatous polyposis coli (APC) tumor-suppressor protein, together with Axin and GSK3beta, form a Wnt- regulated signaling complex that mediates phosphorylation dependent degradation of beta-catenin by the proteasome. Specifically, beta-catenin is regulated by sequential phosphorylation of Ser29, Ser33, Ser37 and Thr41 by glycogen synthase kinase 3beta (GSK3beta) (Liu et al. 2002). This hyperphosphorylation promotes the ubiquitylation and targeted degradation of beta-catenin. Mutations in components of this phosphorylation regulated process that prevent beta-catenin hyperphosphorylation by GSK3beta are associated with cancers (4).

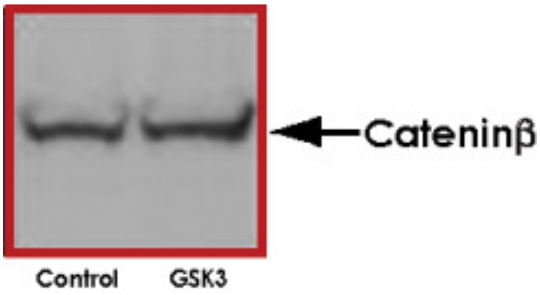
References

1. Morin, P J. et al: Activation of beta-catenen-Tcf signaling in colon cancer by mutations in beta-catenin or APC. Science 1997; 275(5307):1787-1790.
2. Ding, Y. et al: Wnt signal transduction: kinase cogs in a nano-machine? Trends BiochemSci 2002; 27:327-329.
3. Liu, C. et al: Control of beta-catenin phosphorylation/degradation by a dual-kinase mechanism. Cell 2003 108:837-847.
4. Wang, Z H. et al: Phosphorylation of beta-catenin at S33, S37, or T41 can occur in the absence of phosphorylation at T45 in colon cancer cells. 2003 Cancer Res 2003 63:5234-5235.

Sample Data



Western blot of human embryonic kidney cell (HEK) lysate showing specific immunolabeling of the ~83kDabeta-catenin phosphorylated at Ser33 and Ser37.



Control is a standard HEK cell lysate. GSK3 is a HEK cell lysate with glycogen synthase kinase 3beta knocked down by SiRNA.

Anti-phospho-Catenin beta (Ser33 Ser37)

Rabbit Polyclonal Antibody

Catalog Number	C06-365R
Specific Lot Number	J1274-7
Purification	Affinity chromatography
Stability	1yr at –20°C from date of shipment
Storage & Shipping	Store product at –20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
www.signalchem.com

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