

#9565 Store at -20C

Phospho- β -Catenin (Thr41/Ser45) Antibody


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Applications: WB	Reactivity: H M Mk	Sensitivity: Endogenous	MW (kDa): 92	Source: Rabbit	UniProt ID: #P35222	Entrez-Gene Id: 1499
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Product Usage Information	Application Western Blotting	Dilution 1:1000
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.	
Specificity / Sensitivity	Phospho- β -Catenin (Thr41/Ser45) Antibody detects endogenous levels of beta-catenin only when phosphorylated at Thr41 or Ser45. This antibody does not recognize β -catenin phosphorylated at other sites.	
Species predicted to react based on 100% sequence homology:	Dog, Pig	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr41 and Ser45 of human β -catenin. Antibodies are purified by protein A and peptide affinity chromatography.	
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).	
Background References	<ol style="list-style-type: none"> 1. Cadigan, K.M. and Nusse, R. (1997) <i>Genes Dev</i> 11, 3286-3305. 2. Wodarz, A. and Nusse, R. (1998) <i>Annu Rev Cell Dev Biol</i> 14, 59-88. 3. Polakis, P. (1999) <i>Curr Opin Genet Dev</i> 9, 15-21. 4. Amit, S. et al. (2002) <i>Genes Dev</i> 16, 1066-76. 5. Liu, C. et al. (2002) <i>Cell</i> 108, 837-47. 6. Yanagawa, S. et al. (2002) <i>EMBO J</i> 21, 1733-42. 7. Yost, C. et al. (1996) <i>Genes Dev</i> 10, 1443-54. 8. Morin, P.J. et al. (1997) <i>Science</i> 275, 1787-90. 	

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	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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