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Non-phospho (Active) β -Catenin (Ser45) (D2U8Y) XP[®] Rabbit mAb (Alexa Fluor[®] 488 Conjugate)

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

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP	H M R Mk Z Dg	Endogenous	Rabbit IgG	#P35222	1499

Product Usage Information	Application	Dilution
	Flow Cytometry (Fixed/Permeabilized)	1:50
Storage	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
Specificity/Sensitivity	Non-phospho (Active) β -Catenin (Ser45) (D2U8Y) XP [®] Rabbit mAb (Alexa Fluor [®] 488 Conjugate) recognizes endogenous levels of β -catenin protein only when Ser45 is not phosphorylated. This direct conjugate failed to meet in-house performance criteria for immunofluorescence on fixed-frozen tissue (IF-F). For this purpose, we suggest indirect detection using Non-phospho (Active) β -Catenin (Ser45) (D2U8Y) XP [®] Rabbit mAb #19807.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser45 of human β -catenin protein.	
Description	This Cell Signaling Technology antibody is conjugated to Alexa Fluor [®] 488 fluorescent dye and tested in-house for direct flow cytometric and immunofluorescence analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated Non-phospho (Active) β -Catenin (Ser45) (D2U8Y) XP [®] Rabbit mAb #19807.	
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).

Applications Key **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key **H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey **Z:** Zebrafish **Dg:** Dog

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