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#2849

## $\beta$ -Catenin (L54E2) Mouse mAb (Alexa Fluor<sup>®</sup> 488 Conjugate)

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

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-F, IF-IC, FC-FP	H R	Endogenous	Mouse IgG1	#P35222	1499
<b>Product Usage Information</b>	<b>Application</b>				<b>Dilution</b>
	Immunofluorescence (Frozen)				1:25 - 1:100
	Immunofluorescence (Immunocytochemistry)				1:25 - 1:100
	Flow Cytometry (Fixed/Permeabilized)				1:50
<b>Storage</b>	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.				
<b>Specificity/Sensitivity</b>	$\beta$ -Catenin (L54E2) Mouse mAb (Alexa Fluor <sup>®</sup> 488 Conjugate) detects endogenous levels of total $\beta$ -catenin protein.				
<b>Species predicted to react based on 100% sequence homology</b>	Mouse, Monkey, Pig				
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the carboxy terminus of human $\beta$ -catenin. The antibody was conjugated to Alexa Fluor <sup>®</sup> 488 under optimal conditions with an F/P ratio of 2-5.				
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to Alexa Fluor <sup>®</sup> 488 fluorescent dye and tested in-house for direct flow cytometry and immunofluorescent analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated $\beta$ -Catenin (L54E2) Mouse mAb (IF Preferred) #2677.				
<b>Background</b>	$\beta$ -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 $\beta$ -catenin at Ser45. This phosphorylation event primes $\beta$ -catenin for subsequent phosphorylation by GSK-3 $\beta$ (4-6). GSK-3 $\beta$ destabilizes $\beta$ -catenin by phosphorylating it at Ser33, Ser37, and Thr41 (7). Mutations at these sites result in the stabilization of $\beta$ -catenin protein levels and have been found in many tumor cell lines (8).				
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Cadigan, K.M. and Nusse, R. (1997) <i>Genes Dev</i> 11, 3286-3305.</li> <li>2. Wodarz, A. and Nusse, R. (1998) <i>Annu Rev Cell Dev Biol</i> 14, 59-88.</li> <li>3. Polakis, P. (1999) <i>Curr Opin Genet Dev</i> 9, 15-21.</li> <li>4. Amit, S. et al. (2002) <i>Genes Dev</i> 16, 1066-76.</li> <li>5. Liu, C. et al. (2002) <i>Cell</i> 108, 837-47.</li> <li>6. Yanagawa, S. et al. (2002) <i>EMBO J</i> 21, 1733-42.</li> <li>7. Yost, C. et al. (1996) <i>Genes Dev</i> 10, 1443-54.</li> <li>8. Morin, P.J. et al. (1997) <i>Science</i> 275, 1787-90.</li> </ol>				

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Applications Key</b>	<b>IF-F:</b> Immunofluorescence (Frozen) <b>IF-IC:</b> Immunofluorescence (Immunocytochemistry) <b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)
<b>Cross-Reactivity Key</b>	<b>H:</b> Human <b>R:</b> Rat
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