


Store at +4C  #8865	p21 Waf1/Cip1 (12D1) Rabbit mAb (PE Conjugate)	
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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP	H Mk	Endogenous	Rabbit IgG	#P38936	1026
<b>Product Usage Information</b>	<b>Application</b>				<b>Dilution</b>
	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 antibodies. Protect from light. Do not freeze.				
<b>Specificity/Sensitivity</b>	p21 Waf1/Cip1 (12D1) Rabbit mAb (PE Conjugate) detects endogenous levels of total p21 protein. The antibody does not cross-react with other CDK inhibitors.				
<b>Species predicted to react based on 100% sequence homology</b>	Dog				
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human p21 protein.				
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated p21 Waf1/Cip1 (12D1) Rabbit mAb #2947.				
<b>Background</b>	The tumor suppressor protein p21 Waf1/Cip1 acts as an inhibitor of cell cycle progression. It functions in stoichiometric relationships forming heterotrimeric complexes with cyclins and cyclin-dependent kinases. In association with CDK2 complexes, it serves to inhibit kinase activity and block progression through G1/S (1). However, p21 may also enhance assembly and activity in complexes of CDK4 or CDK6 and cyclin D (2). The carboxy-terminal region of p21 is sufficient to bind and inhibit PCNA, a subunit of DNA polymerase, and may coordinate DNA replication with cell cycle progression (3). Upon UV damage or during cell cycle stages when cdc2/cyclin B or CDK2/cyclin A are active, p53 is phosphorylated and upregulates p21 transcription via a p53-responsive element (4). Protein levels of p21 are downregulated through ubiquitination and proteasomal degradation (5).				
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Pestell, R.G. et al. (1999) <i>Endocrine Rev.</i> 20, 501-34.</li> <li>2. Cheng, J. et al. (1999) <i>EMBO J.</i> 18, 1571-83.</li> <li>3. Flores-Rozas, H. et al. (1994) <i>Proc. Natl. Acad. Sci. USA</i> 91, 8655-9.</li> <li>4. Wang, Y. and Prives, C. (1995) <i>Nature</i> 376, 88-91.</li> <li>5. Sheaff, R.J. et al. (2000) <i>Cell</i> 101, 403-10.</li> </ol>				

**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 **Mk:** Monkey

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