

#14566 Store at +4°C

Phospho-cdc2 (Tyr15) (10A11) Rabbit mAb (PE Conjugate)



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

Applications: FC-FP	Reactivity: H M R Mk	Sensitivity: Endogenous	Source/Isotype: Rabbit	UniProt ID: #P06493	Entrez-Gene Id: 983
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Product Usage Information	Application Flow Cytometry (Fixed/Permeabilized)	Dilution 1:50
Storage	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. <i>Do not aliquot the antibodies. Protect from light. Do not freeze.</i>	
Specificity / Sensitivity	Phospho-cdc2 (Tyr15) (10A11) Rabbit mAb (PE Conjugate) detects endogenous levels of cdc2 protein only when phosphorylated at Tyr15. Based on sequence similarity, the antibody may cross-react with CDK2 and CDK3.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr15 of human cdc2.	
Product Description	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 Phospho-cdc2 (Tyr15) (10A11) Rabbit mAb #4539.	
Background	The entry of eukaryotic cells into mitosis is regulated by cdc2 kinase activation, a process controlled at several steps including cyclin binding and phosphorylation of cdc2 at Thr161 (1). However, the critical regulatory step in activating cdc2 during progression into mitosis appears to be dephosphorylation of cdc2 at Thr14 and Tyr15 (2). Phosphorylation at Thr14 and Tyr15, resulting in inhibition of cdc2, can be carried out by Wee1 and Myt1 protein kinases (3,4). The cdc25 phosphatase may be responsible for removal of phosphates at Thr14 and Tyr15 and subsequent activation of cdc2 (1,5).	
Background References	<ol style="list-style-type: none">Atherton-Fessler, S. et al. (1994) <i>Mol Biol Cell</i> 5, 989-1001.Norbury, C. et al. (1991) <i>EMBO J</i> 10, 3321-9.McGowan, C.H. and Russell, P. (1993) <i>EMBO J</i> 12, 75-85.Wells, N.J. et al. (1999) <i>J Cell Sci</i> 112 (Pt 19), 3361-71.Hunter, T. (1995) <i>Cell</i> 80, 225-36.	

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 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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