

#14174 Store at +4°C

CDK2 (78B2) Rabbit mAb (PE Conjugate)**Cell Signaling**
TECHNOLOGY®**Orders:** 877-616-CELL (2355)
orders@cellsignal.com**Support:** 877-678-TECH (8324)**Web:** info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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: #P24941	Entrez-Gene Id: 1017
-------------------------------	--------------------------------	-----------------------------------	----------------------------------	-------------------------------	--------------------------------

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. Do not aliquot the antibodies. Protect from light. Do not freeze.	
Specificity / Sensitivity	CDK2 (78B2) Rabbit mAb (PE Conjugate) detects endogenous levels of total CDK2 protein. The unconjugated antibody does not cross-react with other CDK proteins.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues of human CDK2 protein.	
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 CDK2 (78B2) Rabbit mAb #2546.	
Background	Cyclin-dependent kinase 2 (p33CDK2) is an important component of the cell cycle machinery. Like p34cdc2, kinase activity is regulated by phosphorylation state as well as association with a cyclin subunit and a CDK inhibitor. Inhibitory phosphorylation occurs on Thr14 and Tyr15 (1). Inhibition of CDK2-cyclin complexes can also be attributed to association with p27 Kip1 and p21 Waf1/Cip1 (2). Activation of CDK2 complexes requires dephosphorylation of Thr14 and Tyr15 by cdc25 phosphatase and phosphorylation of Thr160 (3), which is mediated by CAK, a complex of CDK7 and cyclin H (4). CDK2/cyclin E kinase activity is important for the G1 to S transition and phosphorylation of the Rb protein. During S-phase, active CDK2/cyclin A complexes predominate and phosphorylate E2F and the active CDK2 complex persists in the nucleus throughout G2 (5).	
Background References	<ol style="list-style-type: none"> 1. Morgan, D.O. (1995) <i>Nature</i> 374, 131-4. 2. Poon, R.Y. et al. (1996) <i>J Biol Chem</i> 271, 13283-91. 3. Gu, Y. et al. (1992) <i>EMBO J</i> 11, 3995-4005. 4. Fesquet, D. et al. (1993) <i>EMBO J</i> 12, 3111-21. 5. Morgan, D.O. (1997) <i>Annu Rev Cell Dev Biol</i> 13, 261-91. 	

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
Trademarks and Patents	Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc. All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.
Limited Uses	Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.