

#2581 Store at -20C

Phospho-PP1 α (Thr320) AntibodyCell Signaling
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IHC-P	H M R Mk	Endogenous	38	Rabbit	#P62136	5499

Product Usage Information	Application Western Blotting Immunohistochemistry (Paraffin)	Dilution 1:1000 1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Phospho-PP1 α (Thr320) Antibody detects PP1 α only when phosphorylated at Thr320. This antibody may cross-react with the phosphorylated δ or γ isoforms of PP1.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr320 of human PP1 α . Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Type 1 protein phosphatase (PP1), a serine/threonine phosphatase, is highly conserved in eukaryotic cells. Four isoforms of PP1 have been characterized: PP1 α , PP1 δ , PP1 γ 1 and PP1 γ 2 (1). Involvement in cell cycle regulation is one of the biological functions of PP1 (1). It has been illustrated that PP1 dephosphorylates Rb and cdc25 during mitosis (2,3). A cell cycle-dependent phosphorylation at Thr320 of PP1 α by cdc2 kinase inhibits PP1 α activity (4).	
Background References	1. Rubin, E. et al. (1998) <i>Front Biosci</i> 3, D1209-19. 2. Durfee, T. et al. (1993) <i>Genes Dev</i> 7, 555-69. 3. Izumi, T. et al. (1992) <i>Mol Biol Cell</i> 3, 927-39. 4. Kwon, Y.G. et al. (1997) <i>Proc Natl Acad Sci U S A</i> 94, 2168-73.	
Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.	
Applications Key	WB: Western Blotting IHC-P: Immunohistochemistry (Paraffin)	
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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