

# Phospho-PP1 $\alpha$ (Thr320) Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, 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  $\mu$ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

## Specificity/Sensitivity

Phospho-PP1 $\alpha$  (Thr320) Antibody detects PP1 $\alpha$  only when phosphorylated at Thr320. This antibody may cross-react with the phosphorylated  $\delta$  or  $\gamma$  isoforms of PP1.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr320 of human PP1 $\alpha$ . 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 $\alpha$ , PP1 $\delta$ , PP1 $\gamma$ 1 and PP1 $\gamma$ 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 $\alpha$  by cdc2 kinase inhibits PP1 $\alpha$  activity (4).

## Background References

1. Rubin, E. et al. (1998) *Front Biosci* 3, D1209-19.
2. Durfee, T. et al. (1993) *Genes Dev* 7, 555-69.
3. Izumi, T. et al. (1992) *Mol Biol Cell* 3, 927-39.
4. Kwon, Y.G. et al. (1997) *Proc Natl Acad Sci U S A* 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

**W:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

## Cross-Reactivity Key

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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