

PP1α Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk Dm	Endogenous	38	Rabbit	#P62136	5499

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

PP1α Antibody detects endogenous levels of total PP1α protein. This antibody detects recombinant levels of PP1γ and does not cross-react with PP1δ.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino-terminal sequence of human PP1α. 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: PP1α, PP1δ, PP1γ1 and PP1γ2 (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 PP1α by cdc2 kinase inhibits PP1α 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

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey **Dm:** D. melanogaster

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