

**Phospho-mouse p27Kip1(T197) Antibody**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP3878a**

**Specification**

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**Phospho-mouse p27Kip1(T197) Antibody - Product Information**

Application	WB, DB,E
Primary Accession	<a href="#">P46414</a>
Other Accession	<a href="#">NP_034005.2</a>
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	22193

**Phospho-mouse p27Kip1(T197) Antibody - Additional Information**

**Gene ID** 12576

**Other Names**

Cyclin-dependent kinase inhibitor 1B, Cyclin-dependent kinase inhibitor p27, p27Kip1, Cdkn1b

**Target/Specificity**

This mouse p27Kip1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding T197 of mouse p27Kip1.

**Dilution**

WB~~1:1000

DB~~1:500

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Phospho-mouse p27Kip1(T197) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Phospho-mouse p27Kip1(T197) Antibody - Protein Information**

**Name** Cdkn1b

**Function** Important regulator of cell cycle progression (PubMed:[12972555](#), PubMed:[8033213](#)). Inhibits the kinase activity of CDK2 bound to cyclin A, but has little inhibitory activity on CDK2 bound to SPDYA (By similarity). Involved in G1 arrest. Potent inhibitor of cyclin E- and cyclin A-CDK2 complexes (PubMed:[8033213](#)). Forms a complex with cyclin type D-CDK4 complexes and is involved in the assembly, stability, and modulation of CCND1-CDK4 complex activation. Acts either as an inhibitor or an activator of cyclin type D-CDK4 complexes depending on its phosphorylation state and/or stoichiometry.

#### **Cellular Location**

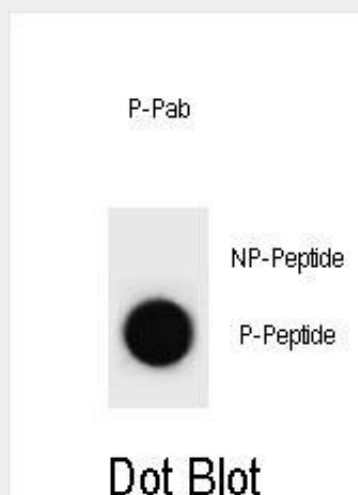
Nucleus. Cytoplasm. Endosome. Note=Nuclear and cytoplasmic in quiescent cells. AKT- or RSK-mediated phosphorylation on Thr-197, binds 14-3-3, translocates to the cytoplasm and promotes cell cycle progression. Mitogen-activated UHMK1 phosphorylation on Ser-10 also results in translocation to the cytoplasm and cell cycle progression Phosphorylation on Ser-10 facilitates nuclear export. Translocates to the nucleus on phosphorylation of Tyr-88 and Tyr-89 (By similarity) Colocalizes at the endosome with SNX6; this leads to lysosomal degradation (PubMed:20228253). {ECO:0000250, ECO:0000269|PubMed:20228253}

#### **Phospho-mouse p27Kip1(T197) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **Phospho-mouse p27Kip1(T197) Antibody - Images**



Dot blot analysis of Mouse p27Kip1 Antibody (Phospho T197) Phospho-specific Pab (Cat. #AP3878a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.

#### **Phospho-mouse p27Kip1(T197) Antibody - Background**

This gene encodes a cyclin-dependent kinase inhibitor,

which shares a limited similarity with CDK inhibitor CDKN1A/p21. The encoded protein binds to and prevents the activation of cyclin E-CDK2 or cyclin D-CDK4 complexes, and thus controls the cell cycle progression at G1. The degradation of this protein, which is triggered by its CDK dependent phosphorylation and subsequent ubiquitination by SCF complexes, is required for the cellular transition from quiescence to the proliferative state. [provided by RefSeq].

#### **Phospho-mouse p27Kip1(T197) Antibody - References**

Singh, A., et al. Mol. Cell. Biol. 30(21):5145-5159(2010)  
Antico-Arciuch, V.G., et al. Oncogene 29(42):5678-5686(2010)  
Mitsuhashi, T., et al. Proc. Natl. Acad. Sci. U.S.A. 107(37):16331-16335(2010)  
Zhang, Y., et al. Genes Dev. 24(16):1746-1757(2010)  
Wang, Y.Y., et al. J Mol Cell Biol 2(4):209-216(2010)