

**Phospho-mouse p21Cip1(S125) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP3875a****Specification**

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**Phospho-mouse p21Cip1(S125) Blocking Peptide - Product Information**

Primary Accession [P39689](#)  
Other Accession [NP\\_001129489.1](#)

**Phospho-mouse p21Cip1(S125) Blocking Peptide - Additional Information**

**Gene ID** 12575

**Other Names**

Cyclin-dependent kinase inhibitor 1, CDK-interacting protein 1, Melanoma differentiation-associated protein, p21, Cdkn1a, Cip1, Waf1

**Target/Specificity**

The synthetic peptide sequence is selected from aa 119-132 of MOUSE Cdkn1a

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**Phospho-mouse p21Cip1(S125) Blocking Peptide - Protein Information**

**Name** Cdkn1a

**Synonyms** Cip1, Waf1

**Function**

May be involved in p53/TP53 mediated inhibition of cellular proliferation in response to DNA damage. Binds to and inhibits cyclin- dependent kinase activity, preventing phosphorylation of critical cyclin-dependent kinase substrates and blocking cell cycle progression. Functions in the nuclear localization and assembly of cyclin D-CDK4 complex and promotes its kinase activity towards RB1. At higher stoichiometric ratios, inhibits the kinase activity of the cyclin D- CDK4 complex (PubMed:<a href="http://www.uniprot.org/citations/25329316" target="\_blank">25329316</a>). Inhibits DNA synthesis by DNA polymerase delta by competing with POLD3 for PCNA binding (By similarity). Plays an important role in controlling cell cycle progression and DNA damage-induced G2 arrest (By similarity).

**Cellular Location**

Cytoplasm {ECO:0000250|UniProtKB:P38936}. Nucleus

### **Phospho-mouse p21Cip1(S125) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **Phospho-mouse p21Cip1(S125) Blocking Peptide - Images**

### **Phospho-mouse p21Cip1(S125) Blocking Peptide - Background**

The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activity is required for cell cycle G1/S transition. This protein has been shown to interact with and be involved in the phosphorylation of tumor suppressor protein Rb. The CDK4 activity associated with this cyclin was reported to be necessary for cell cycle progression through G2 phase into mitosis after UV radiation. Several transcript variants encoding different isoforms have been found for this gene.

### **Phospho-mouse p21Cip1(S125) Blocking Peptide - References**

Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010)  
Kim, J., et al. Cytokine 50(1):42-49(2010)  
Kamatani, Y., et al. Nat. Genet. 42(3):210-215(2010)  
Gumina, M.R., et al. Cell Cycle 9(4):820-828(2010)  
Radulovich, N., et al. Mol. Cancer 9, 24 (2010) :