

**hp16-INK4A Antibody (N-term S7) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP19167a****Specification**

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**hp16-INK4A Antibody (N-term S7) Blocking Peptide - Product Information**Primary Accession [P42771](#)**hp16-INK4A Antibody (N-term S7) Blocking Peptide - Additional Information****Gene ID** 1029**Other Names**

Cyclin-dependent kinase inhibitor 2A, isoforms 1/2/3, Cyclin-dependent kinase 4 inhibitor A, CDK4I, Multiple tumor suppressor 1, MTS-1, p16-INK4a, p16-INK4, p16INK4A, CDKN2A, CDKN2, MTS1

**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.

**hp16-INK4A Antibody (N-term S7) Blocking Peptide - Protein Information****Name** CDKN2A ([HGNC:1787](#))**Synonyms** CDKN2, MTS1**Function**

Acts as a negative regulator of the proliferation of normal cells by interacting strongly with CDK4 and CDK6. This inhibits their ability to interact with cyclins D and to phosphorylate the retinoblastoma protein.

**Cellular Location**

Cytoplasm. Nucleus

**Tissue Location**

Widely expressed but not detected in brain or skeletal muscle. Isoform 3 is pancreas-specific

**hp16-INK4A Antibody (N-term S7) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **hp16-INK4A Antibody (N-term S7) Blocking Peptide - Images**

### **hp16-INK4A Antibody (N-term S7) Blocking Peptide - Background**

This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, MDM1, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene.

### **hp16-INK4A Antibody (N-term S7) Blocking Peptide - References**

Kovacs, E., et al. Proc. Natl. Acad. Sci. U.S.A. 107(12):5429-5434(2010) Irvine, M., et al. Cell Cycle 9(4):829-839(2010) Zhang, H.J., et al. J. Cell. Biochem. 106(3):464-472(2009) Ivanchuk, S.M., et al. Cell Cycle 7(12):1836-1850(2008) Bandyopadhyay, K., et al. Biochemistry 46(49):14325-14334(2007)