

Recombinant Human CDKN1A, His-tagged

Cat. No. CDKN1A-7158H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CDKN1A was expressed as 6*his-tagged fusion protein by E.Coli and purified by Ni-sepharose.
Species	Human
Source	E.coli
ProteinLength	False
Description	This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-CDK2 or -CDK4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen (PCNA), a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of CDK2, and may be instrumental in the execution of apoptosis following caspase activation. Multiple alternatively spliced variants have been found for this gene.
AA Sequence	1-149aa
Storage	The protein is stored in PBS buffer at -20 oC. Repeated freeze-thaw cycles should be avoided.

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Storage Buffer

1M PBS (58mM Na₂HPO₄, 17mM NaH₂PO₄, 68mM NaCl, pH8.) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol.

GENE INFORMATION
Gene Name

CDKN1A?cyclin-dependent kinase inhibitor 1A (p21, Cip1) [?Homo sapiens(human)]

Official Symbol

CDKN1A

Synonyms

CDKN1A; cyclin-dependent kinase inhibitor 1A (p21, Cip1) ; P21; CIP1; SDI1; WAF1; CAP20; CDKN1; MDA-6; MDA6; PIC1; p21Cip1/Waf1;? p21CIP1; cyclin-dependent kinase inhibitor 1A; OTTHUMP00000016298; DNA synthesis inhibitor; CDK-interaction protein 1; wild-type p53-activated fragment 1; melanoma differentiation associated protein 6 ?

Gene ID

1026

mRNA Refseq

NM_000389

Protein Refseq

NP_000380

MIM

116899

UniProt ID

P38936

Chromosome Location

6p21.2

Pathway

AKT phosphorylates targets in the cytosol; Adaptive Immune System; Androgen receptor signaling pathway

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Function

cyclin binding; cyclin-dependent protein kinase inhibitor activity; cyclin-dependent protein kinase inhibitor activity; metal ion binding; protein complex binding

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