

# Recombinant Human CDKN1A Protein, MYC/DDK-tagged, C13 and N15-labeled

Cat. No. CDKN1A-045H Lot. No. (See product label)

## SPECIFICATION

**Product Overview** CDKN1A MS Standard C13 and N15-labeled recombinant protein (NP\_510867) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

**Species** Human

**Source** HEK293

**Description** This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-cyclin-dependent kinase2 or -cyclin-dependent kinase4 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, 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 cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis following caspase activation. Mice that lack this gene have the ability to regenerate damaged or missing tissue. Multiple alternatively spliced variants have been found for this gene.

**Molecular Mass** 18.1 kDa

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<b>AA Sequence</b>	MSEPAGDVRQNPCGSKACRRLFGPVDSEQLSRDCDALMAGCIQEARERWNFDFV TETPLEGDFAWERVRLGLPKLYLPTGPRRGRDELGGRRPGTSPALLQGTAEED HVDLSLSCTLVPRSGEQAEGSPGGPGDSQGRKRRQTSMTDFYHSKRRLIFSKRKP TRTRPLEQKLISEEDLAANDILDYKDDDDKV
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Stability</b>	Stable for 3 months from receipt of products under proper storage and handling conditions.
<b>Storage</b>	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
<b>Concentration</b>	50 µg/mL as determined by BCA
<b>Storage Buffer</b>	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

## GENE INFORMATION

<b>Gene Name</b>	CDKN1A cyclin dependent kinase inhibitor 1A [ Homo sapiens (human) ]
<b>Official Symbol</b>	CDKN1A
<b>Synonyms</b>	CDKN1A; cyclin dependent kinase inhibitor 1A; CAP20; CDKN1; CIP1; MDA-6; P21; p21CIP1; SDI1; WAF1; cyclin-dependent kinase inhibitor 1; CDK-interacting protein 1; CDK-interaction protein 1; DNA synthesis inhibitor; cyclin-dependent kinase inhibitor 1A (p21, Cip1); melanoma differentiation associated protein 6; wild-type p53-activated fragment 1
<b>Gene ID</b>	1026
<b>mRNA Refseq</b>	NM_078467

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**Protein Refseq** NP\_510867

**MIM** 116899

**UniProt ID** P38936

**SDS-PAGE**



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