

# Recombinant Human Cyclin-Dependent Kinase Inhibitor 1A (p21, Cip1), His-tagged

Cat. No. CDKN1A-7157H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant human CDKN1A protein, fused to His-tag at N-terminus, was expressed in E. coli. MW: 20.2 kDa.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	1-164aa
<b>Description</b>	CDKN1A, also known as P21 or WAF1, plays a critical role in the cellular response to DNA damage, and its overexpression results in cell cycle arrest. In association with CDK2 complexes, it serves to inhibit kinase activity and block progression through G1/S. However, CDKN1A may also enhance assembly and activity in complexes of CDK4 or CDK6 and cyclin D. This protein may be the important intermediate by which p53/TP53 mediates its role as an inhibitor of cellular proliferation in response to DNA damage.
<b>Form</b>	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 2M Urea, 10% glycerol, 0.1M NaCl.
<b>Molecular Mass</b>	20.2 kDa (184aa)
<b>AA Sequence</b>	MGSSHHHHHH SSSLVPRGSH MSEPAGDVRQ NPCGSKACRR LFGPVDSEQL SRDCDALMAG CIQEARERWN FDFVTETPLE GDFAWERVRG LGLPKLYLPT

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GPRRGRDELG GGRRPGTSPA LLQGTAEDH VDLSSLCTLV PRSGEQAEGS  
 PGGPGDSQGR KRRQTSMTDF YHSKRRLIFS KRKP

**Purity** >85% by SDS - PAGE

**Applications** SDS-PAGE

**Storage** Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**Concentration** 0.5 mg/ml (determined by Bradford assay)

## GENE INFORMATION

**Gene Name** [CDKN1A cyclin-dependent kinase inhibitor 1A \(p21, Cip1\) \[ Homo sapiens \]](#)

**Official Symbol** CDKN1A

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

**Gene ID** [1026](#)

**mRNA Refseq** [NM\\_000389](#)

**Protein Refseq** [NP\\_000380](#)

**MIM** [116899](#)

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<b>UniProt ID</b>	P38936
<b>Chromosome Location</b>	6p21.1
<b>Pathway</b>	AKT phosphorylates targets in the cytosol, organism-specific biosystem; AMPK signaling, organism-specific biosystem; Adaptive Immune System, organism-specific biosystem; Adipogenesis, organism-specific biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Angiopoietin receptor Tie2-mediated signaling, organism-specific biosystem; Bladder cancer, organism-specific biosystem;
<b>Function</b>	cyclin binding; cyclin-dependent protein kinase activating kinase activity; cyclin-dependent protein kinase activity; cyclin-dependent protein kinase inhibitor activity; kinase activity; metal ion binding; protein binding; protein kinase inhibitor activity;

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