

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

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

SPECIFICATION

Product Overview	Recombinant human CDKN1A protein, fused to His-tag at N-terminus, was expressed in E. coli. MW: 20.2 kDa.
Species	Human
Source	E.coli
ProteinLength	1-164aa
Description	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.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 2M Urea, 10% glycerol, 0.1M NaCl.
Molecular Mass	20.2 kDa (184aa)
AA Sequence	MGSSHHHHHH SSGLVPRGSH MSEPAGDVRQ NPCGSKACRR LFGPVDSEQL SRDCDALMAG CIQEAREERWN FDFVTETPLE GDFAWERVRG LGLPKLYLPT

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	GPRRGRDELG GGRRPGTSPA LLQGTAEEDH VDSLSTCTLV 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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UniProt ID	P38936
Chromosome Location	6p21.1
Pathway	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;
Function	cyclin binding; cyclin-dependent protein kinase activating kinase activity; cyclin-dependent protein 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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