Recombinant Human CDKN1A

Cat. No. CDKN1A-30053TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human p21, with an N-terminal tag.
Species	Human
Source	E.coli
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.
Tissue specificity	Expressed in all adult human tissues, with 5-fold lower levels observed in the brain.
Form	Liquid
Storage buffer	Preservative: NoneConstituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, pH 7.5

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Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the CDI family.

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;
Gene ID	1026
mRNA Refseq	NM_000389
Protein Refseq	NP_000380
MIM	116899
Uniprot ID	P38936
Chromosome Location	6p21.1
Pathway	AKT phosphorylates targets in the cytosol, organism-specific biosystem; AMPK signaling, organism-specific biosystem; Adipogenesis, organism-specific biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Angiopoietin receptor Tie2-mediated signaling, organism-specific biosystem;

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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;

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