

Recombinant Full Length Human CDKN1A Protein, C-Flag-tagged

Cat. No. CDKN1A-381HFL Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant Full Length Human CDKN1A Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.

Species

Human

Source

Mammalian Cells

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.

Form

25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.

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Molecular Mass	17.9 kDa
AA Sequence	MSEPAGDVRQNPCGSKACRRLFGPVDSEQLSRDCDALMAGCIQEARERWNFDFV TETPLEGDFAWERV RG LGLPKLYLPTGPRRGRDELGGRRPGTSPALLQGTAED HVDLSLSCTLVPRSGEQAEGSPGGPGDSQGR KRRQTSMTDFYHSKRRLIFSKRKPTRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome
Protein Pathways	Bladder cancer, Cell cycle, Chronic myeloid leukemia, ErbB signaling pathway, Glioma, Melanoma, p53 signaling pathway, Pathways in cancer, Prostate cancer
Full Length	Full L.
GENE INFORMATION	
Gene Name	CDKN1A cyclin dependent kinase inhibitor 1A [Homo sapiens (human)]
Official Symbol	CDKN1A

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Synonyms	P21; CIP1; SDI1; WAF1; CAP20; CDKN1; MDA-6; p21CIP1
Gene ID	1026
mRNA Refseq	NM_078467.3
Protein Refseq	NP_510867.1
MIM	116899
UniProt ID	P38936



Coomassie blue staining of purified CDKN1A protein.

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