

Recombinant Human Cyclin-dependent Kinase Inhibitor 1A (p21, Cip1)

Cat. No. CDKN1A-169H Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant Human p21WAF1 protein expressed in *E. coli* encodes full length amino acids and has a molecular mass of 47 kDa.

Species

Human

Source

E. coli

Description

p21WAF1/Cip1/Sdi1/Pic1 is a tumor suppressor protein. Expression of p21WAF1 is induced by wild type, but not mutant, p53 suppressor protein. The p21WAF1 protein binds to cyclin/CDK complexes and inhibits their kinase activity thereby stopping cell cycle progression. Meanwhile, the p21WAF1 protein also binds to PCNA (proliferating cell nuclear antigen) and blocks DNA replication but not the DNA repair process. Evidently, inactivation of p53 disrupts the p53-dependent expression of p21WAF1. p21WAF1 is a tumor suppressor involved in the pathogenesis of a variety of malignancies.

Formulation

2g/20µl/100g/1ml purified human p21WAF1 protein in 50mM Tris-Acetate pH-7.5, 1mM EDTA and 20% Glycrol.

Application And Suggested Dilutions

•ELISA •Inhibition Assays •Western Blotting

Characterization

On SDS-PAGE commassie blue staining gel, the purified recombinant protein shows a band of 47kDa.

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Activity	Not known.
Storage & Stability	Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months.
Full Length	Full L.
GENE INFORMATION	
Gene Name	CDKN1A cyclin-dependent kinase inhibitor 1A (p21, Cip1) [Homo sapiens]
Synonyms	CDKN1A; cyclin-dependent kinase inhibitor 1A (p21, Cip1) ; P21; CIP1; SDI1; WAF1; CAP20; CDKN1; MDA-6; MDA6; PIC1; p21Cip1/Waf1; p21CIP1; cyclin-dependent kinase inhibitor 1A; OTTHUMP00000016298; DNA synthesis inhibitor; CDK-interaction protein 1; wild-type p53-activated fragment 1; melanoma differentiation associated protein 6
Gene ID	1026
mRNA Refseq	NM_000389
Protein Refseq	NP_000380
MIM	116899
UniProt ID	P38936
Chromosome Location	6p21.1
Pathway	Bladder cancer; Cell cycle; Chronic myeloid leukemia; ErbB signaling pathway;

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Glioma; Melanoma; Pathways in cancer; Prostate cancer; p53 signaling pathway; Cell Cycle Checkpoints; Cell Cycle, Mitotic; DNA Replication

Function

cyclin binding; cyclin-dependent protein kinase inhibitor activity; cyclin-dependent protein kinase inhibitor activity; metal ion binding; protein complex binding; protein kinase inhibitor activity; zinc ion binding

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