# Recombinant Human CDKN1A Protein, His-tagged

**Cat. No.** CDKN1A-116H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Human CDKN1A(Ser2-Pro164), transcript variant 1, fused with His tag at N-terminal was expressed in E. coli. |
| **Species** | Human |
| **Source** | E.coli |
| **ProteinLength** | Ser2-Pro164 |
| **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** | Lyophilized from a 0.2 μM filtered solution of 20mM Phosphate buffer, 150mM NaCl, |

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

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| | pH 7.2. |
| **Molecular Mass** | 19.3 kDa |
| **Endotoxin** | < 0.1 EU per μg protein as determined by LAL test |
| **Purity** | >95% as determined by SDS-PAGE and Coomassie blue staining |
| **Storage** | Stable for at least 6 months from date of receipt under proper storage and handling conditions. |
| **Concentration** | Resuspend the protein to the desired concentration in proper buffer. |

## GENE INFORMATION

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| **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 |

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