

## Recombinant Human Cyclin-Dependent Kinase Inhibitor 1A, GST-tagged

**Cat. No.** CDKN1A-4837H    **Lot. No.** (See product label)

### SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Product Overview</b>  | Recombinant full-length human CDKN1A was expressed in E. coli cells using a N-terminal GST tag.                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>           | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>            | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>       | CDKN1A (Cyclin-Dependent Kinase Inhibitor 1A) regulates cell cycle progression, terminal differentiation, and apoptosis. CDKN1A was shown to be induced by p53 and to be a potent inhibitor of cyclin-dependent kinase (CDK) activity. DNA damage leads to increased expression of CDKN1A in cyclin E-containing complexes and to an associated decrease in cyclin-dependent kinase activity. CDKN1A is a critical downstream effector in the p53-specific pathway of growth control in mammalian cells. |
| <b>Applications</b>      | Kinase Assay; Western Blot                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Molecular Weight</b>  | 46 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Form</b>              | Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM PMSF, 25 % glycerol.                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Specific Activity</b> | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

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

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| <b>Purity</b>        | > 80 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Concentration</b> | 0.2 ug/ul                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Sequences</b>     | Full-length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage</b>       | Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.                                                                                                                                                                                                                                                         |
| <b>Pathways</b>      | AKT phosphorylates targets in the cytosol; AMPK signaling; Adipogenesis; Alpha6-Beta4 Integrin Signaling Pathway; Angiopoietin receptor Tie2-mediated signaling; Bladder cancer; C-MYB transcription factor network; Cell Cycle; Cyclin D associated events in G1; Cyclin E associated events during G1/S transition; DNA Replication; Direct p53 effectors; E2F transcription factor network; ErbB signaling pathway; G1 to S cell cycle control; G1/S DNA Damage Checkpoints; G1/S Transition |

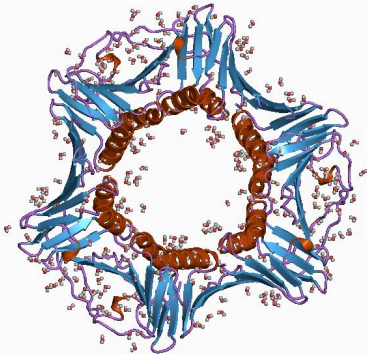
## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | CDKN1A cyclin-dependent kinase inhibitor 1A [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Official Symbol</b> | CDKN1A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Synonyms</b>        | CDKN1A; cyclin-dependent kinase inhibitor 1A; P21; CIP1; SDI1; WAF1; CAP20; CDKN1; MDA-6; p21CIP1; cyclin-dependent kinase inhibitor 1; OTTHUMP00000016297; OTTHUMP00000016298; DNA synthesis inhibitor; CDK-interacting protein 1; CDK-interaction protein 1; wild-type p53-activated fragment 1; melanoma differentiation associated protein 6; cyclin-dependent kinase inhibitor 1A (p21, Cip1); Cyclin-dependent kinase inhibitor 1; Melanoma differentiation-associated protein 6 |

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| <b>Gene ID</b>                | 1026                                                                                                                                                                                                                                                             |
| <b>mRNA Refseq</b>            | NM_000389                                                                                                                                                                                                                                                        |
| <b>Protein Refseq</b>         | NP_000380                                                                                                                                                                                                                                                        |
| <b>MIM</b>                    | 116899                                                                                                                                                                                                                                                           |
| <b>UniProt ID</b>             | P38936                                                                                                                                                                                                                                                           |
| <b>Chromosome Location</b>    | 6q21.2                                                                                                                                                                                                                                                           |
| <b>Function</b>               | cyclin binding; cyclin-dependent protein kinase activating kinase activity; cyclin-dependent protein kinase activity; cyclin-dependent protein kinase inhibitor activity; kinase activity; metal ion binding; protein binding; protein kinase inhibitor activity |
| <b>Constructed from 1AXC.</b> |                                                                                                                                                                              |