

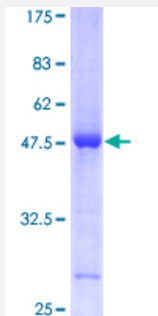
Full-Length

CDKN1A (Human) Recombinant Protein (P02)

Catalog # H00001026-P02

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human CDKN1A full-length ORF (NP_000380.1, 1 a.a. - 164 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MSEPAGDVRQNPCGSKACRRLLFGPVDSEQLSRDCDALMAGCIQEARERWNFDFVTETPLEGD
FAWERVRLGLPKLYLPTGPRRGRDELGGRRPGTSPALLQGTAEDHVDLSLSCTLVPRSGE
QAEGLSPGGPGDSQGRKRRQTSMTDFYHSKRRLIFSKRKP

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

43.67

Preparation Method
[in vitro wheat germ expression system](#)
Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — CDKN1A

Entrez GeneID [1026](#)

GeneBank Accession# [NM_000389.1](#)

Protein Accession# [NP_000380.1](#)

Gene Name CDKN1A

Gene Alias CAP20, CDKN1, CIP1, MDA-6, P21, SDI1, WAF1, p21CIP1

Gene Description cyclin-dependent kinase inhibitor 1A (p21, Cip1)

Omim ID [116899](#)

Gene Ontology [Hyperlink](#)

Gene Summary 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. Two alternatively spliced variants, which encode an identical protein, have been reported. [provided by RefSeq]

Other Designations CDK-interaction protein 1|DNA synthesis inhibitor|OTTHUMP00000016298|cyclin-dependent kinase inhibitor 1A|melanoma differentiation associated protein 6|wild-type p53-activated fragment 1

Pathway

- [Bladder cancer](#)
- [Cell cycle](#)
- [Chronic myeloid leukemia](#)
- [ErbB signaling pathway](#)
- [Glioma](#)
- [Melanoma](#)
- [p53 signaling pathway](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)

Disease

- [Adenocarcinoma](#)
- [Ataxia telangiectasia](#)
- [Atherosclerosis](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Chromosome Aberrations](#)
- [Chronic Disease](#)
- [Colorectal Neoplasms](#)
- [Diabetes Mellitus](#)

- [Disease Progression](#)
- [DNA Damage](#)
- [Edema](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Glaucoma](#)
- [Glioma](#)
- [Head and Neck Neoplasms](#)
- [Helicobacter Infections](#)
- [Intestinal Neoplasms](#)
- [Kidney Failure](#)
- [Laryngeal Neoplasms](#)
- [Leiomyoma](#)
- [Leukemia](#)
- [Low Tension Glaucoma](#)
- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)
- [Lupus Nephritis](#)
- [Lymphoma](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Meningioma](#)
- [Mouth Neoplasms](#)
- [Multiple endocrine neoplasia](#)
- [Multiple Endocrine Neoplasia Type 1](#)
- [Myocardial Infarction](#)

- [Nasopharyngeal Neoplasms](#)
- [Neoplasm Invasiveness](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neuroma](#)
- [Occupational Diseases](#)
- [Ocular Hypertension](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Papillomavirus Infections](#)
- [Pharyngeal Neoplasms](#)
- [Precancerous Conditions](#)
- [Prostate cancer](#)
- [Prostatic Hyperplasia](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)
- [Radiation Injuries](#)
- [Skin Diseases](#)
- [Skin Neoplasms](#)
- [Stomach Neoplasms](#)
- [Urinary Bladder Neoplasms](#)
- [Uterine Cervical Neoplasms](#)
- [Uterine Neoplasms](#)