Recombinant Full Length Human CDKN2A Protein, C-Flag-tagged

Cat. No. CDKN2A-423HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human CDKN2A Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, the E3 ubiquitin-protein ligase MDM2, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.

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

Molecular Mass	16.4 kDa
AA Sequence	MEPAAGSSMEPSADWLATAAARGRVEEVRALLEAGALPNAPNSYGRRPIQVMMMG SARVAELLLLHGAEP NCADPATLTRPVHDAAREGFLDTLVVLHRAGARLDVRDAWG RLPVDLAEELGHRDVARYLRAAAGGTRGS NHARIDAAEGPSDIPDTRTRPLEQKLISEEDLAANDILDYKDDDDKV
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, Glioma, Melanoma, Non-small cell lung cancer, p53 signaling pathway, Pancreatic cancer, Pathways in cancer
Full Length	Full L.

GENE INFORMATION

Gene Name	CDKN2A cyclin dependent kinase inhibitor 2A [Homo sapiens (human)]
Official Symbol	CDKN2A

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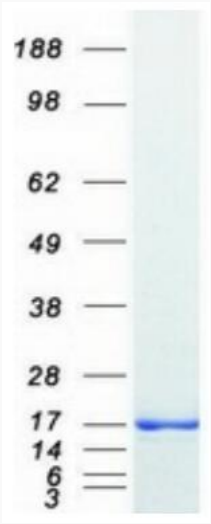
Synonyms	ARF; MLM; P14; P16; P19; CMM2; INK4; MTS1; TP16; CDK4I; CDKN2; INK4A; MTS-1; P14ARF; P19ARF; P16INK4; P16INK4A; P16-INK4A
Gene ID	1029
mRNA Refseq	NM_000077.5
Protein Refseq	NP_000068.1
MIM	600160
UniProt ID	P42771



Coomassie blue staining of purified CDKN2A protein.

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