

# Recombinant Human CDKN2A Protein, 13-residue TAT-tagged

Cat. No. CDKN2A-117H Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Recombinant Human CDKN2A, transcript variant 1, fused with 13-residue TAT tag was expressed in E. coli.

**Species** Human

**Source** E.coli

**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** Lyophilized from a 0.2 M filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2

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<b>Molecular Mass</b>	18 kDa
<b>Purity</b>	>95% as determined by SDS-PAGE and Coomassie blue staining
<b>Concentration</b>	Resuspend the protein in the desired concentration in proper buffer
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	CDKN2A cyclin-dependent kinase inhibitor 2A [ Homo sapiens ]
<b>Official Symbol</b>	CDKN2A
<b>Synonyms</b>	CDKN2A; cyclin-dependent kinase inhibitor 2A; CDKN2, cyclin dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4) , MLM; ARF; CDK4I; CMM2; INK4; INK4a; MTS1; p14; p16; p16INK4a; p19; p19Arf; CDK4 inhibitor p16-INK4; multiple tumor suppressor 1; cell cycle negative regulator beta; cyclin-dependent kinase 4 inhibitor A; cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4); MLM; P14; P16; P19; TP16; CDKN2; INK4A; MTS-1; P14ARF; P19ARF; P16INK4; P16INK4A; P16-INK4A;
<b>Gene ID</b>	1029
<b>mRNA Refseq</b>	NM_000077
<b>Protein Refseq</b>	NP_000068
<b>MIM</b>	600160
<b>UniProt ID</b>	P42771

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