

## Product datasheet for **TP762226**

### **p16INK4A (CDKN2A) (NM\_058195) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Human cyclin-depEndent kinase inhibitor 2A (melanoma, p16, inhibits CDK4) (CDKN2A), transcript variant 4, Met42-End, with N-terminal His tag, expressed in E.coli, 50ug
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	A DNA sequence encoding the region(Met42-End) of CDKN2A
<b>Tag:</b>	N-His
<b>Predicted MW:</b>	13.9 kDa
<b>Concentration:</b>	>0.05 µg/µL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	50 mM Tris-HCl, pH 8.0, 8 M urea
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_478102</a>
<b>Locus ID:</b>	1029
<b>UniProt ID:</b>	<a href="#">Q8N726</a>
<b>RefSeq Size:</b>	1154
<b>Cytogenetics:</b>	9p21.3
<b>RefSeq ORF:</b>	519
<b>Synonyms:</b>	ARF; CDK4I; CDKN2; CMM2; INK4; INK4A; MLM; MTS-1; MTS1; P14; P14ARF; P16; P16-INK4A; P16INK4; P16INK4A; P19; P19ARF; TP16



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**Summary:**

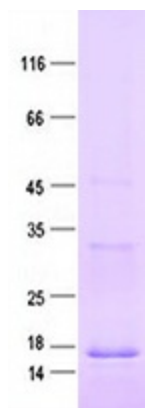
This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes 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. [provided by RefSeq, Sep 2012]

**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

**Product images:**

Purified recombinant protein CDKN2A was analyzed by SDS-PAGE gel and Coomassie Blue Staining.