

## **Product datasheet for TP320937M**

## OriGene Technologies, Inc.

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## p16INK4A (CDKN2A) (NM\_000077) Human Recombinant Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits

CDK4) (CDKN2A), transcript variant 1, 100 µg

Species: Human
Expression Host: HEK293T

**Expression cDNA Clone** >RC220937 representing NM\_000077 or AA Sequence: Red=Cloning site Green=Tags(s)

MEPAAGSSMEPSADWLATAAARGRVEEVRALLEAGALPNAPNSYGRRPIQVMMMGSARVAELLLLHGAEP NCADPATLTRPVHDAAREGFLDTLVVLHRAGARLDVRDAWGRLPVDLAEELGHRDVARYLRAAAGGTRGS

NHARIDAAEGPSDIPD

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV** 

Tag: C-Myc/DDK
Predicted MW: 16.4 kDa

Concentration: >0.05 µg/µL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional

chromatography steps.

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** NP 000068

**Locus ID:** 1029

UniProt ID: P42771, K7PML8





RefSeq Size: 1163

Cytogenetics: 9p21.3 RefSeq ORF: 468

Synonyms: ARF; CDK4l; CDKN2; CMM2; INK4; INK4A; MLM; MTS-1; MTS1; P14; P14ARF; P16; P16-INK4A;

P16INK4; P16INK4A; P19; P19ARF; TP16

**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

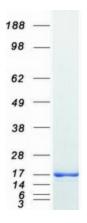
suppressor gene. [provided by RefSeq, Sep 2012]

**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:**



Coomassie blue staining of purified CDKN2A protein (Cat# [TP320937]). The protein was produced from HEK293T cells transfected with CDKN2A cDNA clone (Cat# [RC220937]) using MegaTran 2.0 (Cat# [TT210002]).