

Product datasheet for PH320937

p16INK4A (CDKN2A) (NM_000077) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	CDKN2A MS Standard C13 and N15-labeled recombinant protein (NP_000068)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC220937
Predicted MW:	16.4 kDa
Protein Sequence:	>RC220937 representing NM_000077 Red=Cloning site Green=Tags(s) MEPAAGSSMEPSADWLATAAARGRVEEVRALLEAGALPNAPNSYGRRIQVMMGSRVAELLLLHGAEP NCADPATLTRPVHDAAREGFLDTLVVLRHAGARLDVRDAWGRLPVDLAEELGHRDVARYLRAAAGGTRGS NHARIDAAEGPSDIPD TRTRPLEQKLI SEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_000068
RefSeq Size:	1163
RefSeq ORF:	468
Synonyms:	ARF; CDK4I; CDKN2; CMM2; INK4; INK4A; MLM; MTS-1; MTS1; P14; P14ARF; P16; P16-INK4A; P16INK4; P16INK4A; P19; P19ARF; TP16
Locus ID:	1029
UniProt ID:	P42771 , K7PML8



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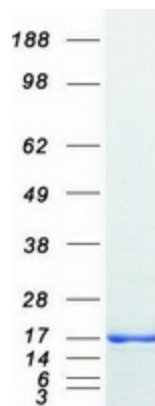
Cytogenetics: 9p21.3

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]).