OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for PH301765

p21 (CDKN1A) (NM_078467) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	CDKN1A MS Standard C13 and N15-labeled recombinant protein (NP_510867)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC201765
Predicted MW:	18.1 kDa
Protein Sequence:	>RC201765 protein sequence Red=Cloning site Green=Tags(s) MSEPAGDVRQNPCGSKACRRLFGPVDSEQLSRDCDALMAGCIQEARERWNFDFVTETPLEGDFAWERVRG LGLPKLYLPTGPRRGRDELGGGRRPGTSPALLQGTAEEDHVDLSLSCTLVPRSGEQAEGSPGGPGDSQGR KRRQTSMTDFYHSKRRLIFSKRKP TRTRPLEQKLISEEDLAANDILDYKDDDDKV
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- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-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_510867
RefSeq Size:	2122
RefSeq ORF:	492
Synonyms:	CAP20; CDKN1; CIP1; MDA-6; P21; p21CIP1; SDI1; WAF1
Locus ID:	1026
UniProt ID:	P38936, A0A024RCX5

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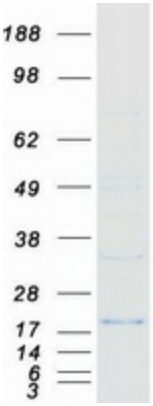
Cytogenetics: 6p21.2

Summary: This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-cyclin-dependent kinase2 or -cyclin-dependent kinase4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen, a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis following caspase activation. Mice that lack this gene have the ability to regenerate damaged or missing tissue. Multiple alternatively spliced variants have been found for this gene. [provided by RefSeq, Sep 2015]

Protein Families: Druggable Genome

Protein Pathways: Bladder cancer, Cell cycle, Chronic myeloid leukemia, ErbB signaling pathway, Glioma, Melanoma, p53 signaling pathway, Pathways in cancer, Prostate cancer

Product images:



Coomassie blue staining of purified CDKN1A protein (Cat# [TP301765]). The protein was produced from HEK293T cells transfected with CDKN1A cDNA clone (Cat# [RC201765]) using MegaTran 2.0 (Cat# [TT210002]).