

## Product datasheet for **TP301765M**

### p21 (CDKN1A) (NM\_078467) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human cyclin-dependent kinase inhibitor 1A (p21, Cip1) (CDKN1A), transcript variant 2, 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC201765 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)
	MSEPAGDVRQNPCGSKACRRLFGPVDSEQLSRDCDALMAGCIQEARERWNFDFVTETPLEGDFAWERVRG LGLPKLYLPTGPRRGRDELGGRRPGTSPALLQGTAEDHVDLSLSCTLVPRSGEQAEGSPGGPGDSQGR KRRQTSMTDFYHSKRRLIFSKRKP
	<b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b>
Tag:	C-Myc/DDK
Predicted MW:	17.9 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:	<a href="#">NP_510867</a>
Locus ID:	1026
UniProt ID:	<a href="#">P38936</a> , <a href="#">A0A024RCX5</a>



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RefSeq Size: 2122

Cytogenetics: 6p21.2

RefSeq ORF: 492

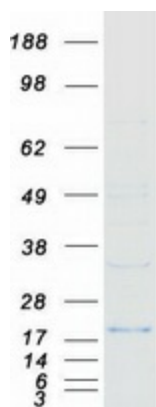
Synonyms: CAP20; CDKN1; CIP1; MDA-6; P21; p21CIP1; SDI1; WAF1

**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]).