

## Product datasheet for **AR50549PU-S**

### CDKN1A / p21WAF1 (1-164, His-tag) Human Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	CDKN1A / p21WAF1 (1-164, His-tag) human recombinant protein, 20 µg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MGSSHHHHHH SSGLVPRGSH MSEPAGDVRQ NPCGSKACRR LFGPVDSEQL SRDCDALMAG CIQEARERWN FDFVTETPLE GDFAWERVGR LGLPKLYLPT GPRRGRDELG GGRRPGTSPA LLQGTAEDH VDLSLSCTLV PRSGEQAEGS PGGPGDSQGR KRRQTSMTDF YHSKRRLIFS KRKP
Tag:	His-tag
Predicted MW:	20.2 kDa
Concentration:	lot specific
Purity:	>85% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 2M Urea, 10% glycerol, 0.1M NaCl
Preparation:	Liquid purified protein
Protein Description:	Recombinant human CDKN1A protein, fused to His-tag at N-terminus, was expressed in E.coli.
Storage:	Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	<u><a href="#">NP_000380</a></u>
Locus ID:	1026
UniProt ID:	<u><a href="#">P38936</a></u> , <u><a href="#">A0A024RCX5</a></u>
Cytogenetics:	6p21.2
Synonyms:	CAP20; CDKN1; CIP1; MDA-6; P21; p21CIP1; SDI1; WAF1



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**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:**
