P21 Cip1 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	p21 Cip1 (CDKN1A), Blocking Peptide
Full Product Name	p21 Cip1 Blocking Peptide
Product Gene Name	CDKN1A blocking peptide
Product Synonym Names	CAP20; CDK-interacting protein 1; CDKI; CDKN1; Cdkn1a; CDN1A_HUMAN; CIP1; Cyclin Dependent Kinase Inhibitor 1A; Cyclin-dependent kinase inhibitor 1; Cyclin-dependent kinase inhibitor 1A (P21); Cyclin-dependent kinase inhibitor 1A (p21, Cip1); DNA Synthesis Inhibitor; MDA-6; MDA6; Melanoma differentiation-associated protein 6; Melanoma differentiation-associated protein; p21; P21 protein; p21CIP1; p21Cip1/Waf1; p21WAF; PIC1; SDI1; SLC12A9; WAF1; Wild type p53 activated fragment 1 (WAF1); Wild type p53 activated fragment 1; Wildtype p53-activated fragment 1
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	p21 Cip1 peptide (MBS9625796) is used for blocking the activity of p21 Cip1 antibody (MBS9607080)
Molecular Weight	18,119 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (36644237..36655116). Location: 6p21.2
OMIM	116899
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for CDKN1A blocking peptide	Blocking/Control
Related Product Information for CDKN1A blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of CDKN1A blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CDKN1A purchase	MBS9625796 is a blocking peptide targeting CDKN1A. Also known as p21 Cip1 Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CDKN1A. It may not necessarily be applicable to this product.

NCBI GI #	11386203
NCBI GeneID	1026

NCBI Accession #	NP_000380.1
UniProt Primary Accession #	P38936
UniProt Secondary Accession #	Q14010; Q6FI05; Q9BUT4
UniProt Related Accession #	P38936
GenBank Nucleotide #	NM_000389.4
NCBI Official Full Name	cyclin-dependent kinase inhibitor 1
NCBI Official Synonym Full Names	cyclin-dependent kinase inhibitor 1A (p21, Cip1)
NCBI Official Symbol	CDKN1A
NCBI Official Synonym Symbols	P21; CIP1; SDI1; WAF1; CAP20; CDKN1; MDA-6; p21CIP1
UniProt Protein Name	Cyclin-dependent kinase inhibitor 1
UniProt Synonym Protein Names	CDK-interacting protein 1; Melanoma differentiation-associated protein 6; MDA-6; p21
UniProt Gene Name	CDKN1A
UniProt Synonym Gene Names	CAP20; CDKN1; CIP1; MDA6; PIC1; SDI1; WAF1; MDA-6
UniProt Entry Name	CDN1A_HUMAN
NCBI Protein Information	cyclin-dependent kinase inhibitor 1; DNA synthesis inhibitor; CDK-interacting protein 1; CDK-interaction protein 1; wild-type p53-activated fragment 1; melanoma differentiation associated protein 6
NCBI Summary for CDKN1A	This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-CDK2 or -CDK4 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 (PCNA), 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 CDK2, and may be instrumental in the execution of apoptosis following caspase activation. Multiple alternatively spliced variants have been found for this gene. [provided by RefSeq, Nov 2010]

UniProt Comments for CDKN1A	p21Cip1: a cell-cycle regulatory protein that Interacts with cyclin-CDK2 and -CDK4, inhibiting cell cycle progression at G1. Its expression is tightly controlled by p53, through which this protein mediates the p53-dependent cell cycle arrest at G1 phase. Protein type: Inhibitor; Cell cycle regulation Chromosomal Location of Human Ortholog: 6p21.2 Cellular Component: nucleoplasm; intracellular membrane-bound organelle; perinuclear region of cytoplasm; cyclin-dependent protein kinase holoenzyme complex; nucleus; cytosol Molecular Function: cyclin-dependent protein kinase inhibitor activity; cyclin binding; protein binding; cyclin-dependent protein kinase activating kinase activity; metal ion binding; ubiquitin protein ligase binding; protein complex binding Biological Process: nerve growth factor receptor signaling pathway; response to arsenic; response to toxin; DNA damage response, signal transduction by p53 class mediator resulting in cell cycle arrest; protein amino acid phosphorylation; negative regulation of cell proliferation; positive regulation of fibroblast proliferation; positive regulation of B cell proliferation; G2/M transition of mitotic cell cycle; cell cycle arrest; DNA damage response, signal transduction by p53 class mediator resulting in induction of apoptosis; response to corticosterone stimulus; response to X-ray; response to drug; epidermal growth factor receptor signaling pathway; organ regeneration; fibroblast growth factor receptor signaling pathway; phosphoinositide-mediated signaling; negative regulation of cyclin-dependent protein kinase activity; response to organic nitrogen; positive regulation of programmed cell death; response to hyperoxia; positive regulation of protein kinase activity; Ras protein signal transduction; cellular response to extracellular stimulus; regulation of protein import into nucleus, translocation; innate immune response; negative regulation of phosphorylation; mitotic cell cycle; regulation of cyclin-dependent protein kinase activity; negative regulation of cell growth; response to DNA damage stimulus; negative regulation of apoptosis; G1/S transition of mitotic cell cycle
Research Articles on CDKN1A	**1.** In the present study, the p21 codon ser31arg polymorphism was significantly associated with increased risk for acute myeloid leukemia.
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