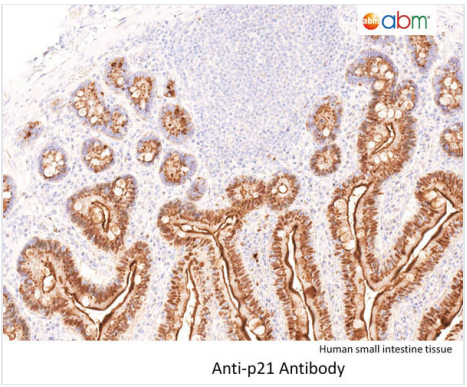
p21 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	p21, Monoclonal Antibody
Full Product Name	SensiStain Anti-p21 Antibody
Product Gene Name	anti-p21 antibody
Product Synonym Names	p21
Clonality	Monoclonal
Isotype	IgG2a
Clone Number	IHC021
Host	Mouse
Species Reactivity	Human
Form/Format	Tris Buffer, pH 7.3 - 7.7, with 1% BSA and <0.1% Sodium Azide
Purity/Purification	Purified
Specificity	p21
Preparation and Storage	This product is stable for several weeks at 4 degree C as an undiluted liquid. Dilute only prior to immediate use. For extended storage, aliquot contents and freeze at -20 degree C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of receipt.
Molecular Weight	18,119 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (36644237..36655116). Location: 6p21.2
OMIM	116899
3D Structure	ModBase 3D Structure for P38936
Immunogen	Recombinant Protein
Product Categories/Family for anti-p21 antibody	SensiStain Primary IHC Antibodies; IHC Antibodies; Primary- IHC
Applications Tested/Suitable for anti-p21 antibody	ELISA (EIA), Immunohistochemistry (IHC)
Application Notes for anti-p21 antibody	1:50-1:200
Related Product Information for anti-p21 antibody	p21 detects for the presence or absence of p21 (also known as $p21^{Cip1}$, $p21^{Waf1}$, cyclin-dependent kinase inhibitor 1, or CDK-interacting protein 1) which functions to regulate the cell cycle at G1 through cyclin-CDK2 or cyclin-CDK4 complex inhibition. Decrease expression in p21 is linked to poor prognosis in a number of carcinomas. Normally p21 is expressed in all healthy adult human tissues.
Other Notes	Small volumes of anti-p21 antibody 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 p21 purchase	MBS4165888 is an antibody targeting p21. Also known as SensiStain Anti-p21 Antibody. Reactive in Human. Host: Mouse.



Testing Data of anti-p21 antibody

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for p21. 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 #	O15145
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
Protein Family	p21-activated protein kinase-interacting protein
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 p21	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 p21	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 p21	**1.** In the present study, the p21 codon ser31arg polymorphism was significantly associated with increased risk for acute myeloid leukemia.
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