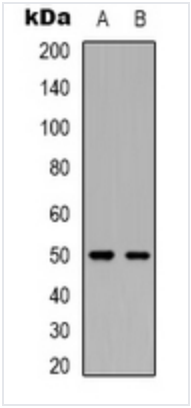
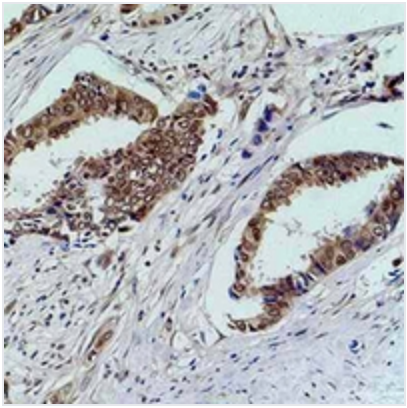
p21 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	p21, Polyclonal Antibody
Full Product Name	Rabbit anti-p21 Antibody
Product Gene Name	anti-p21 antibody
Product Synonym Names	CAP20; CDKN1; CIP1; MDA6; PIC1; SDI1; WAF1; Cyclin-dependent kinase inhibitor 1; CDK-interacting protein 1; Melanoma differentiation-associated protein 6; MDA-6; p21
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Concentration	1mg/mL (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid repeated freeze/thaw cycles.
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 corresponding to human p21.
Product Categories/Family for anti-p21 antibody	Primary antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-p21 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-p21 antibody	WB: 1:1000-1:2000 IHC: 1:100-1:200
Related Product Information for anti-p21 antibody	MBS4510054 is an antibody targeting p21. Also known as Rabbit anti-p21 Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.
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.



Western Blot (WB) of anti-p21 antibody
Western blot analysis of p21 expression in 293T (A), MCF7 (B), mouse liver (C), rat liver (D) whole cell lysates.



Immunohistochemistry (IHC) of anti-p21 antibody
Immunohistochemical analysis of p21 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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 #	Q14010; 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
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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