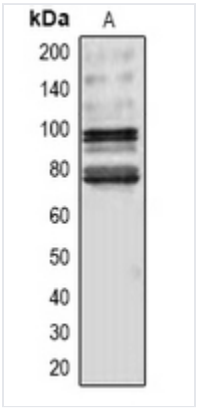
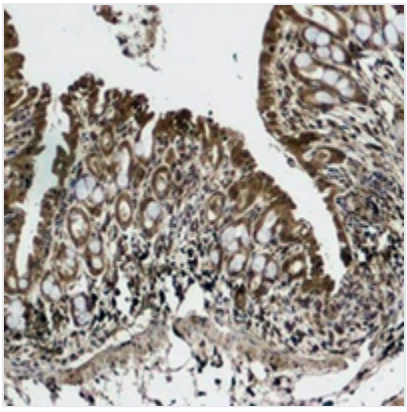
TP53 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	p53 (TP53), Polyclonal Antibody
Full Product Name	Anti-p53 Antibody
Product Gene Name	anti-TP53 antibody
Product Synonym Names	P53; Cellular tumor antigen p53; Antigen NY-CO-13; Phosphoprotein p53; Tumor suppressor p53
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	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 affinity chromatography.
Specificity	Recognizes endogenous levels of p53 protein.
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C for one year. Avoid freeze/thaw cycles.
Molecular Weight	43,155 Da
3D Structure	ModBase 3D Structure for P02340
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence of mouse p53. The exact sequence is proprietary.
Applications Tested/Suitable for anti-TP53 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-TP53 antibody	Western Blot: (1/1000 - 1/2000); Immunohistochemistry: (1/200 - 1/500)
Related Product Information for anti-TP53 antibody	MBS8242111 is an antibody targeting TP53. Also known as Anti-p53 Antibody. Reactive in Mouse, Rat. Host: Rabbit. Rabbit polyclonal to p53
Other Notes	Small volumes of anti-TP53 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-TP53 antibody
Western blot analysis of PI3K p85 alpha expression in NIH3T3 (A), Raw264.7 (B), rat kidney (C), rat liver (D) whole cell lysates.



Immunohistochemistry (IHC) of anti-TP53 antibody

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TP53. It may not necessarily be applicable to this product.

NCBI GI #	172047304
NCBI GeneID	22059
NCBI Accession #	P02340.3
UniProt Primary Accession #	P02340
UniProt Secondary Accession #	Q9QUP3
UniProt Related Accession #	P02340
NCBI Official Full Name	Cellular tumor antigen p53
NCBI Official Synonym Full Names	transformation related protein 53
NCBI Official Symbol	Trp53
NCBI Official Synonym Symbols	bbl; bfy; bhy; p44; p53; Tp53
UniProt Protein Name	Cellular tumor antigen p53
UniProt Synonym Protein Names	Tumor suppressor p53
Protein Family	Cellular tumor antigen
UniProt Gene Name	Tp53
UniProt Synonym Gene Names	P53; Trp53
UniProt Entry Name	P53_MOUSE
NCBI Protein Information	cellular tumor antigen p53
NCBI Summary for TP53	This gene encodes tumor protein p53, which responds to diverse cellular stresses to regulate target genes that induce cell cycle arrest, apoptosis, senescence, DNA repair, or changes in metabolism. p53 protein is expressed at low level in normal cells and at a high level in a variety of transformed cell lines, where it's believed to contribute to transformation and malignancy. p53 is a DNA-binding protein containing transcription activation, DNA-binding, and oligomerization domains. It is postulated to bind to a p53-binding site and activate expression of downstream genes that inhibit growth and/or invasion, and thus function as a tumor suppressor. Mice deficient for this gene are developmentally normal but are susceptible to spontaneous tumors. Evidence to date shows that this gene contains one promoter, in contrast to alternative promoters of the human gene, and transcribes a few of splice variants which encode different isoforms, although the biological validity or the full-length nature of some variants has not been determined. [provided by RefSeq, Jul 2008]

UniProt Comments for TP53	p53: a transcription factor and major tumor suppressor that plays a major role in regulating cellular responses to DNA damage and other genomic aberrations. Activation of p53 can lead to either cell cycle arrest and DNA repair or apoptosis. More than 50 percent of human tumors contain a mutation or deletion of the TP53 gene. p53 is modified post-translationally at multiple sites. DNA damage induces phosphorylation of p53 at S15, S20 and S37, reducing its interaction with the oncoprotein MDM2. MDM2 inhibits p53 accumulation by targeting it for ubiquitination and proteasomal degradation. Phosphorylated by many kinases including Chk2 and Chk1 at S20, enhancing its tetramerization, stability and activity. The phosphorylation by CAK at S392 is increased in human tumors and has been reported to influence the growth suppressor function, DNA binding and transcriptional activation of p53. Phosphorylation of p53 at S46 regulates the ability of p53 to induce apoptosis. The acetylation of p53 appears to play a positive role in the accumulation of p53 during the stress response. Following DNA damage, p53 becomes acetylated at K382, enhancing its binding to DNA. Deacetylation of p53 can occur through interaction with SIRT1, a deacetylase that may be involved in cellular aging and the DNA damage response. p53 regulates the transcription of a set of genes encoding endosomal proteins that regulate endosomal functions. These include STEAP3 and CHMP4C, which enhance exosome production, and CAV1 and CHMP4C, which produce a more rapid endosomal clearance of the EGFR from the plasma membrane. DNA damage regulates a p53-mediated secretory pathway, increasing the secretion of some proteins such as Hsp90, SERPINE1, SERPINB5, NKEF-A, and CyPA, and inhibiting the secretion of others including CTSL and IGFBP-2. Two alternatively spliced human isoforms have been reported. Isoform 2 is expressed in quiescent lymphocytes. Seems to be non-functional. May be produced at very low levels due to a premature stop codon in the mRNA, leading to nonsense-mediated mRNA decay. Protein type: DNA-binding; Transcription factor; Nuclear receptor co-regulator; Motility/polarity/chemotaxis; Tumor suppressor; Activator Cellular Component: chromatin; cytoplasm; cytosol; endoplasmic reticulum; mitochondrial matrix; mitochondrion; nuclear body; nuclear chromatin; nuclear matrix; nucleolus; nucleoplasm; nucleus; PML body; protein complex; replication fork; transcription factor complex; transcription factor TFIID complex Molecular Function: ATP binding; chaperone binding; chromatin binding; copper ion binding; damaged DNA binding; DNA binding; enzyme binding; histone acetyltransferase binding; histone deacetylase regulator activity; identical protein binding; metal ion binding; p53 binding; protease binding; protein binding; protein C-terminus binding; protein heterodimerization activity; protein kinase binding; protein N-terminus binding; protein phosphatase 2A binding; protein phosphatase binding; protein self-association; receptor tyrosine kinase binding; sequence-specific DNA binding; transcription factor activity; transcription factor binding; ubiquitin protein ligase binding Biological Process: apoptosis; B cell lineage commitment; cell aging; cell cycle; cell cycle arrest; cellular response to glucose starvation; central nervous system development; cerebellum development; chromatin assembly; chromosome breakage; chromosome organization and biogenesis; circadian behavior; determination of adult life span; DNA damage response, signal transduction by p53 class mediator; DNA damage response, signal transduction by p53 class mediator resulting in cell cycle arrest; DNA damage response, signal transduction by p53 class mediator resulting in induction of apoptosis; DNA damage response, signal transduction by p53 class mediator resulting in transcription of p21 class mediator; DNA strand renaturation; double-strand break repair; embryonic development ending in birth or egg hatching; embryonic organ development; entrainment of circadian clock by photoperiod; ER overload response; G1 DNA damage checkpoint; gastrulation; heart development; in utero embryonic development; mitochondrial DNA repair; multicellular organism growth; multicellular organismal development; negative regulation of apoptosis; negative regulation of cell growth; negative regulation of cell proliferation; negative regulation of DNA replication; negative regulation of fibroblast proliferation; negative regulation of mitotic cell cycle; negative regulation of neuroblast proliferation; negative regulation of proteolysis; negative regulation of smooth muscle cell proliferation; negative regulation of telomerase activity; negative regulation of transcription from RNA polymerase II promoter; negative regulation of transcription, DNA-dependent; negative regulation of transforming growth factor beta receptor signaling pathway; neuron apoptosis; nucleotide-excision repair; positive regulation of apoptosis; positive regulation of cell cycle; positive regulation of histone deacetylation; positive regulation of leukocyte migration; positive regulation of neuron apoptosis; positive regulation of peptidyl-tyrosine phosphorylation; positive regulation of protein oligomerization; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription, DNA-dependent; programmed cell death; protein complex assembly; protein import into nucleus, translocation; protein localization; protein stabilization; protein tetramerization; regulation of apoptosis; regulation of cell cycle; regulation of cell proliferation; regulation of intracellular pH; regulation of neuron apoptosis; regulation of tissue remodeling; regulation of transcription from RNA polymerase II promoter; regulation of transcription, DNA-dependent; release of cytochrome c from mitochondria; response to DNA damage stimulus; response to drug; response to gamma radiation; response to oxidative stress; response to salt stress; response to UV; response to X-ray; rhythmic process; rRNA transcription; somitogenesis; T cell differentiation in the thymus; T cell lineage commitment; T cell proliferation during immune response; transcription, DNA-dependent; transforming growth factor beta receptor signaling pathway; viral reproduction

Research Articles on TP53	**1.** Data suggest that targeting of tumor supressor p53-dependent/-independent apoptotic pathways may lead to the possibility of designing and developing better therapeutic regimens to treat Dalton lymphoma (DL) and other cancers.
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