



p53 Rabbit pAb

Catalog No	YP-Ab-00474
Isotype	IgG
Reactivity	Human;Mouse;Rat;Monkey
Applications	WB;IHC;IF;ELISA
Gene Name	TP53
Protein Name	Cellular tumor antigen p53
Immunogen	The antiserum was produced against synthesized peptide derived from human p53. AA range:283-332
Specificity	p53 Polyclonal Antibody detects endogenous levels of p53 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	TP53; P53; Cellular tumor antigen p53; Antigen NY-CO-13; Phosphoprotein p53; Tumor suppressor p53
Observed Band	53kD
Cell Pathway	Cytoplasm . Nucleus . Nucleus, PML body . Endoplasmic reticulum . Mitochondrion matrix . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Recruited into PML bodies together with CHEK2 (PubMed:12810724). Translocates to mitochondria upon oxidative stress (PubMed:22726440). Translocates to mitochondria in response to mitomycin C treatment (PubMed:27323408). .; [Isoform 1]: Nucleus . Cytoplasm. Predominantly nuclear but localizes to the cytoplasm when expressed with isoform 4.; [Isoform 2]: Nucleus. Cytoplasm. Localized mainly in the nucleus with minor staining in the cytoplasm.; [Isoform 3]: Nucleus. Cytoplasm. Localized in the nucleus in most cells but found in the cytoplasm in some cells.; [Isoform 4]: Nucleus. Cytoplasm. Predominantly nuclear but translocates to the cy
Tissue Specificity	Ubiquitous. Isoforms are expressed in a wide range of normal tissues but in a tissue-dependent manner. Isoform 2 is expressed in most normal tissues but is not detected in brain, lung, prostate, muscle, fetal brain, spinal cord and fetal liver. Isoform 3 is expressed in most normal tissues but is not detected in lung, spleen, testis, fetal brain, spinal cord and fetal liver. Isoform 7 is expressed in most normal tissues but is not detected in prostate, uterus, skeletal muscle and breast. Isoform



8 is detected only in colon, bone marrow, testis, fetal brain and intestine. Isoform 9 is expressed in most normal tissues but is not detected in brain, heart, lung, fetal liver, salivary gland, breast or intestine.

Function

cofactor: Binds 1 zinc ion per subunit., disease: Defects in TP53 are a cause of choroid plexus papilloma [MIM:260500]. Choroid plexus papilloma is a slow-growing benign tumor of the choroid plexus that often invades the leptomeninges. In children it is usually in a lateral ventricle but in adults it is more often in the fourth ventricle. Hydrocephalus is common, either from obstruction or from tumor secretion of cerebrospinal fluid. If it undergoes malignant transformation it is called a choroid plexus carcinoma. Primary choroid plexus tumors are rare and usually occur in early childhood., disease: Defects in TP53 are a cause of Li-Fraumeni syndrome (LFS) [MIM:151623]. LFS is an autosomal dominant familial cancer syndrome that in its classic form is defined by the existence of a proband affected by a sarcoma before 45 years with a first degree relative affected by any tumor before 45 years a

Background

tumor protein p53(TP53) Homo sapiens This gene encodes a tumor suppressor protein containing transcriptional activation, DNA binding, and oligomerization domains. The encoded protein responds to diverse cellular stresses to regulate expression of target genes, thereby inducing cell cycle arrest, apoptosis, senescence, DNA repair, or changes in metabolism. Mutations in this gene are associated with a variety of human cancers, including hereditary cancers such as Li-Fraumeni syndrome. Alternative splicing of this gene and the use of alternate promoters result in multiple transcript variants and isoforms. Additional isoforms have also been shown to result from the use of alternate translation initiation codons (PMIDs: 12032546, 20937277). [provided by RefSeq, Feb 2013],

matters needing attention

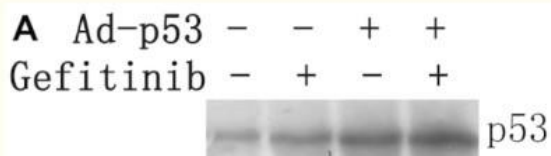
Avoid repeated freezing and thawing!

Usage suggestions

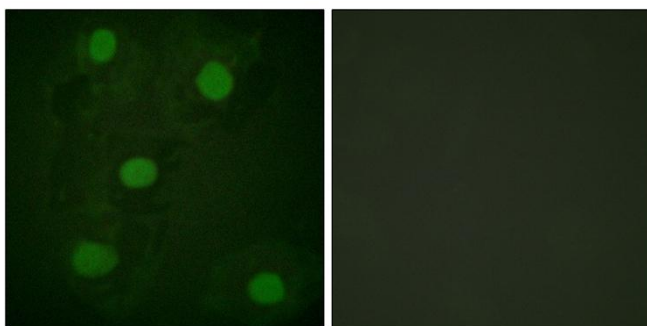
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



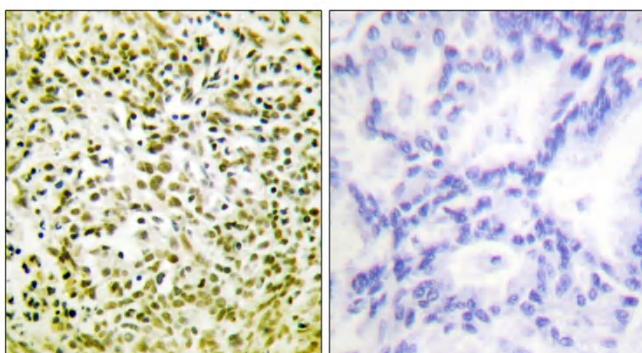
Products Images



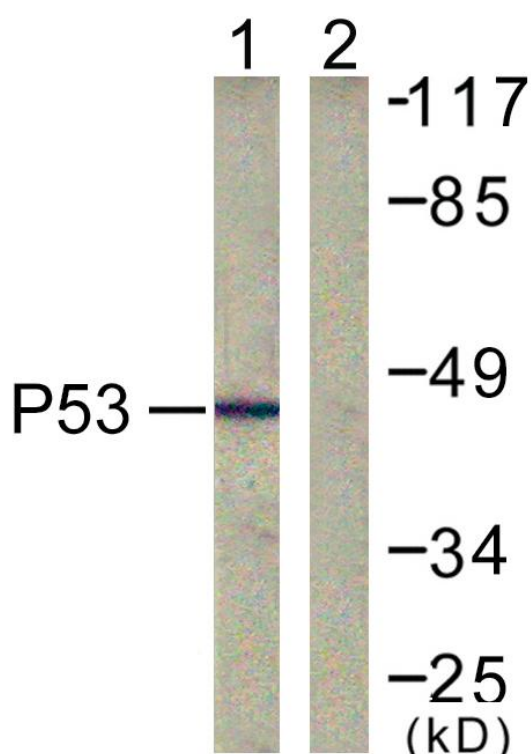
Wang, Xinzhao, et al. "Ad-p53 enhances the sensitivity of triple-negative breast cancer MDA-MB-468 cells to the EGFR inhibitor gefitinib." *Oncology reports* 33.2 (2015): 526-532.



Immunofluorescence analysis of HeLa cells, using p53 Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using p53 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COS7 cells, treated with TSA 400nM 24h, using p53 Antibody. The lane on the right is blocked with the synthesized peptide.