

Datasheet for ABIN94448
anti-p53 antibody



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Overview

Quantity:	100 µg
Target:	p53 (TP53)
Reactivity:	Human, Non-Human Primate
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This p53 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Flow Cytometry (FACS), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunoprecipitation (IP), Immunocytochemistry (ICC)

Product Details

Purpose:	Anti-p53 Purified
Immunogen:	Bacterially expressed full-length wild-type p53
Clone:	BP53-12
Isotype:	IgG2a
Specificity:	The antibody BP53-12 recognizes a defined epitope (aa 16-25) on human p53, a 50 kDa intracellular tumour suppressor found in increased amounts in a wide variety of transformed cells, it is frequently mutated or inactivated in many types of cancer.
Cross-Reactivity (Details):	Human, Non-Human Primates
Purification:	Purified by sequential steps of physicochemical fractionation (differential precipitation and solid-phase chromatography methods).

Product Details

Purity: > 95 % (by SDS-PAGE)

Target Details

Target: p53 (TP53)

Alternative Name: p53 ([TP53 Products](#))

Background: Tumor protein p53, The tumour suppressor protein p53 is a key element of intracellular anticancer protection. It mediates cell cycle arrest or apoptosis in response to DNA damage or to starvation for pyrimidine nucleotides. It is up-regulated in response to these stress signals and stimulated to activate transcription of specific genes, resulting in expression of p21waf1 and other proteins involved in G1 or G2/M arrest, or proteins that trigger apoptosis, such as Bcl-2. The structure of p53 comprises N-terminal transactivation domain, central DNA-binding domain, oligomerisation domain, and C-terminal regulatory domain. There are various phosphorylation sites on p53, of which the phosphorylation at Ser15 is important for p53 activation and stabilization., BCC7, TRP53, TP53, LFS1

Gene ID: 7157

UniProt: [P04637](#)

Pathways: [p53 Signaling](#), [MAPK Signaling](#), [PI3K-Akt Signaling](#), [Apoptosis](#), [AMPK Signaling](#), [Chromatin Binding](#), [ER-Nucleus Signaling](#), [Positive Regulation of Endopeptidase Activity](#), [Hepatitis C](#), [Protein targeting to Nucleus](#), [Autophagy](#), [Warburg Effect](#)

Application Details

Application Notes: Western blotting: Recommended dilution: 1-2 µg/mL, overnight at 4 °C, positive control: RAMOS human lymphoma cell line, non-reducing conditions. SDS-PAGE (12 % separating gel).
Immunohistochemistry: Recommended dilution: 5-10 µg/mL.
Flow cytometry: Recommended dilution: 1-4 µg/mL. Intracellular staining.

Restrictions: For Research Use only

Handling

Concentration: 1 mg/mL

Buffer: Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide

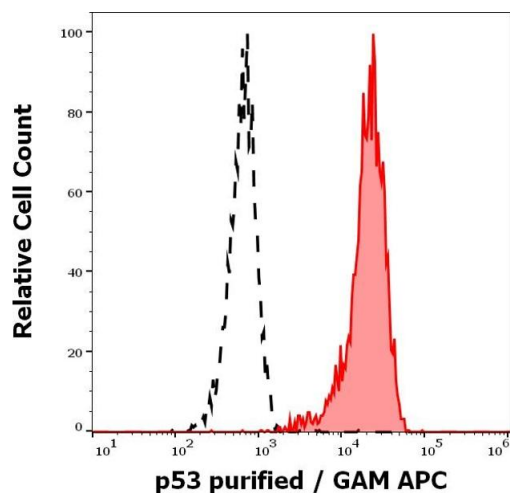
Preservative: Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Do not freeze.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

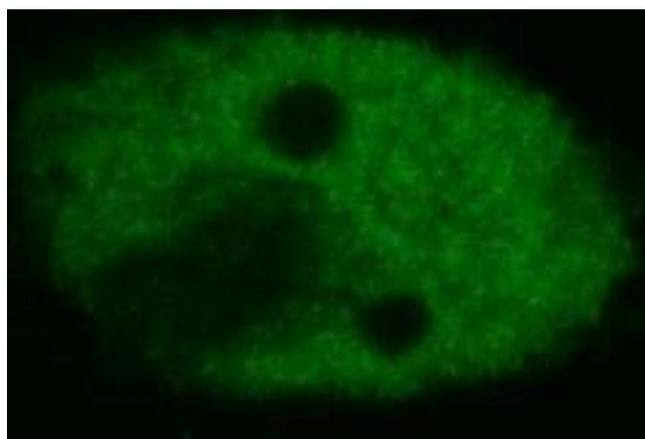
Publications

Product cited in:	Yoshitake, Aoyagi, Fujiwara: "Creation of a novel telomere-cutting endonuclease based on the EN domain of telomere-specific non-long terminal repeat retrotransposon, TRAS1." in: Mobile DNA, Vol. 1, Issue 1, pp. 13, (2010) (PubMed). Dolezalová, Vojtšsek, Kovarik: "Epitope analysis of the human p53 tumour suppressor protein." in: Folia biologica, Vol. 43, Issue 1, pp. 49-51, (1997) (PubMed). Bártek, Bártková, Vojtšsek, Stasková, Lukás, Rejthar, Kovarik, Midgley, Gannon, Lane: "Aberrant expression of the p53 oncoprotein is a common feature of a wide spectrum of human malignancies." in: Oncogene, Vol. 6, Issue 9, pp. 1699-703, (1991) (PubMed). Bártková, Bártek, Lukás, Vojtšsek, Stasková, Rejthar, Kovarik, Midgley, Lane: "p53 protein alterations in human testicular cancer including pre-invasive intratubular germ-cell neoplasia." in: International journal of cancer. Journal international du cancer, Vol. 49, Issue 2, pp. 196-202, (1991) (PubMed).
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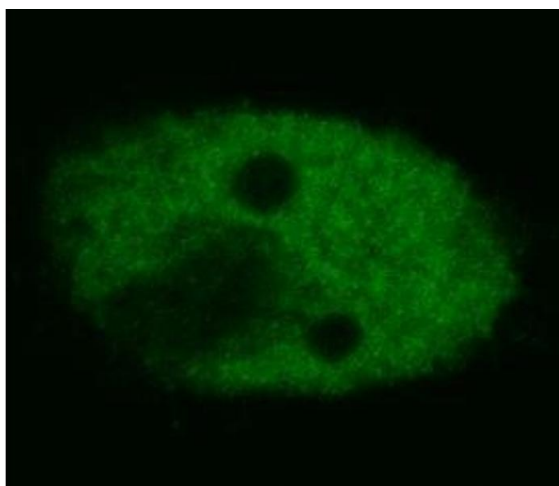
Flow Cytometry

Image 1. Separation of Ramos cells stained using anti-human p53 (BP53-12) purified antibody (concentration in sample 1,7 $\mu\text{g/mL}$, GAM APC, red-filled) from Ramos cells unstained by primary antibody (GAM APC, black-dashed) in flow cytometry analysis (intracellular staining).



Confocal Microscopy

Image 2. Confocal microscopy of human HeLa cells using anti-p53 (BP53-12 ; FITC). The expression of p53 protein was enhanced by intercalating reagent. Cells were fixed and permeabilized before incubation with the p53-FITC MAb. Photo provided by Dr. Hodný, Inst. of Experimental Medicine, Prague, Czech Republic



Immunocytochemistry

Image 3. Immunocytochemistry (confocal microscopy) of human HeLa cells using anti-p53 (BP53-12, FITC). The expression of p53 protein was enhanced by intercalating reagent. Cells were fixed and permeabilized before incubation with the p53-FITC MAb. Photo provided by Dr. Hodný, Inst. of Experimental Medicine, Prague, Czech Republic