Datasheet for ABIN967416

anti-p53 antibody (full length)

1 Validation | 2 Images | 8 Publications

Go to Product page

Overview

Quantity:	0.1 mg
Target:	p53 (TP53)
Binding Specificity:	full length
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This p53 antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP), Immunohistochemistry (Formalin-fixed Sections) (IHC (f)), Immunohistochemistry (Frozen Sections) (IHC (fro)), Intracellular Staining (ICS)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Recombinant full-length human p53
Clone:	G59-12
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive

Product Details

	deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	p53 (TP53)
Alternative Name:	p53 (TP53 Products)
Background:	P53 is a 53 kD nuclear phosphoprotein that acts as a tumor suppressor protein, and is involved in inhibiting cell proliferation when DNA damage occurs. The gene for p53 is the most commonly mutated gene yet identified in human cancers. Missense mutations occur in tumors of the colon, lung, breast, ovary, bladder and several other organs. The mutant p53 is overexpressed in a variety of transformed cells and the wildtype p53 forms specific complexes with several viral oncogenes including SV40 large T, E1B from adenovirus and E6 from human papilloma virus. Wildtype p53 plays a role as a checkpoint protein for DNA damage during the S-phase of the cell cycle. p53 migrates at a reduced molecular weight of 53 kDa. Clone G59-12 recognizes mutant and wild type human, rat and mouse p53 tumor suppressor protein. Recombinant full-length human p53 was used as immunogen.
Molecular Weight:	53 kDa
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:	Clone G59-12 conjugated to R-Phycoerythrin (PE) is suggested for flow cytometric analysis of p53. Positive control cell lines include SKBR-3 human breast carcinoma cells (ATCC HTB-30) and A431 human vulval carcinoma cells (ATCC CRL-1555). Jurkat T cells (ATCC TIB-152) or MCF-7 human breast carcinoma cells (ATCC HTB-22) are suggested as negative controls. Positive immunostaining is seen in a high proportion of breast and colon carcinomas. p53 staining is not typically detected in normal skin, brain, kidney, lung, stomach, or breast tissue.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:

Van Meir, Roemer, Diserens, Kikuchi, Rempel, Haas, Huang, Friedmann, de Tribolet, Cavenee: " Single cell monitoring of growth arrest and morphological changes induced by transfer of wild-type p53 alleles to glioblastoma cells." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 92, Issue 4, pp. 1008-12, (1995) (PubMed).

Jacquemier, Molès, Penault-Llorca, Adélaide, Torrente, Viens, Birnbaum, Theillet: "p53 immunohistochemical analysis in breast cancer with four monoclonal antibodies: comparison of staining and PCR-SSCP results." in: **British journal of cancer**, Vol. 69, Issue 5, pp. 846-52, (1994) (PubMed).

Mørkve, Halvorsen, Stangeland, Gulsvik, Laerum: "Quantitation of biological tumor markers (p53, c-myc, Ki-67 and DNA ploidy) by multiparameter flow cytometry in non-small-cell lung cancer." in: **International journal of cancer. Journal international du cancer**, Vol. 52, Issue 6, pp. 851-5, (1993) (PubMed).

van den Berg, Baas, Polak, Offerhaus: "Detection of p53 overexpression in routinely paraffin-embedded tissue of human carcinomas using a novel target unmasking fluid." in: **The American journal of pathology**, Vol. 142, Issue 2, pp. 381-5, (1993) (PubMed).

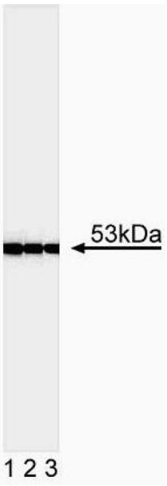
Yeargin, Cheng, Yu, Gjerset, Bogart, Haas: "P53 mutation in acute T cell lymphoblastic leukemia is of somatic origin and is stable during establishment of T cell acute lymphoblastic leukemia cell lines." in: **The Journal of clinical investigation**, Vol. 91, Issue 5, pp. 2111-7, (1993) (PubMed).

Publications

There are more publications referencing this product on: Product page

Images

Image 1.



Western Blotting

Image 2. Western blot analysis of p53. A SV-40 transformed rat granulosa cell lysate was probed with anti-human p53 (clone G59-12, ABIN967416) at concentrations of 2.0 (lane 1), 1.0 (lane 2), and 0.5 µg/ml (lane 3). Clone G59-12 identifies p53 at 53 kDa.

Successfully validated (Western Blotting (WB))

by Alamo Laboratories Inc

Report Number: 028755

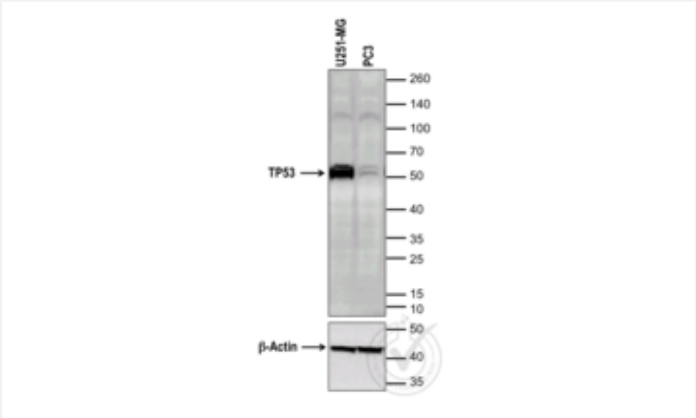
Date: Sep 16 2013

Lot Number:	2335876
Method validated:	Western Blotting (WB)
Positive Control:	U251-MG cells
Negative Control:	PC3 cells
Notes:	Strong bands of the expected size were observed in the positive control sample, and not in the negative control sample.
Primary Antibody:	- Antibody: Tumor Protein P53 (TP53) antibody - Catalog number: ABIN967416 - Supplier: BD Bioscience - Supplier catalog number: 554157 - Lot number: 2335876
Secondary Antibody:	- Antibody: Goat anti-Mouse IgG-HRP - Supplier: Santa Cruz Biotechnology - Catalog number: SC-2005 - Lot number: 0312
Controls:	• U251-MG (positive) and PC3 (negative) cell line extracts were prepared using RIPA buffer (R0278, Sigma Aldrich). • Loading control: blots were stripped and re-probed for beta-actin to ensure equal loading of lysates.
Protocol:	• 1. Total protein extracts were boiled in 1X SDS Sample Buffer containing 1% SDS and 1.25% • Beta-mercaptoethanol at 95°C for 5 min prior to loading. • 2. 32 µg of boiled extracts were loaded and resolved on a 8-16% SDS-polyacrylamide gel. • 3. The Spectra Multicolor Broad Range molecular mass marker (26634 Thermo Scientific) was used as a • standard. • 4. Proteins were then transferred onto PVDF membrane by tank transfer and protein transfer was • confirmed with Ponceau S staining. • 5. The immunoblot membrane was blocked in PBS containing 3% (W/V) non-fat dry milk at room • temperature for 1 h. • 6. The membrane was rinsed with PBS containing 0.05% Tween-20 once. • 7. The membrane was immersed with the protein side up in the antibody solution in PBS containing 1%

- (W/V) non-fat dry milk and incubated for 2 h at room temperature (~26°C).
- 8. The membrane was rinsed in PBS containing 0.05% Tween-20 thrice for 10 min each.
- 9. The membrane was incubated in the HRP-conjugated secondary antibody solution in PBS containing
- 1% (W/V) non-fat dry milk and incubated for 1 h at room temperature (~26°C) with gentle agitation.
- 10. The membrane was rinsed thrice PBS containing 0.05% Tween-20 thrice for 10 min each.
- 11. The membrane was washed in PBS twice for 30 sec each.
- 12. Signals were detected with Pierce ECL Western Blotting Substrate (32109, Thermo Scientific). The
- blot was scanned for 300 sec.
- 13. The membrane was rinsed three times with PBS containing 0.05% Tween-20.4. Incubated in Acidic Glycine Stripping Buffer at room temperature with gentle agitation for 3 times, 10
- min each.
- 15. The membrane was washed in PBS containing 0.05% Tween-20 times for 10 min each.
- 16. Repeated Steps 5-12 with the loading control antibody (beta-actin) and its matching secondary
- antibody.

Experimental Notes:	None

Image for Validation report #028755



Validation image no. 1 for anti-Tumor Protein P53 (TP53) (full length) antibody (ABIN967416)

Figure 1: Western blot analysis of U251-MG and PC3 cell line extracts using Tumor Protein P53 (TP53) antibody (Catalog number ABIN967416, Lot number 2335876). TP53 is present in the positive control sample (U251-MG) and absent from the negative control sample (PC3). The arrowhead indicates the expected position of TP53 (predicted MW ~53kDa). 32 micrograms of total protein lysates from each sample were loaded into each lane. Upper panel: scanned image of the TP53 antibody probed with the U251-MG and PC3 extracts in lanes 1 and 2 respectively. Lower panel: scanned image of the loading control (beta-actin).