Datasheet for ABIN5646914

anti-p53 antibody (AA 32-79)

2 Images

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Overview

Quantity:	100 µg
Target:	p53 (TP53)
Binding Specificity:	AA 32-79
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), Immunofluorescence (IF), Flow Cytometry (FACS), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	Human p53 beta-galactosidase fusion protein was used as the immunogen for this antibody. Its epitope maps near the N-terminal end (aa 32-79) of p53.
Clone:	PAb 1801
Isotype:	IgG1 kappa
No Cross-Reactivity:	Mouse (Murine), Rat (Rattus)
Characteristics:	This mAb reacts with an N-terminal epitope (aa 32-79) of both wild type and mutated p53. Mutation and/or allelic loss of p53 is one of the causes of a variety of mesenchymal and epithelial tumors. If it occurs in the germ line, such tumors run in families. In most transformed and tumor cells the concentration of p53 is increased 5-1000 fold over the minute concentrations (1000 Molecules cell) in normal cells, principally due to the increased half-life (4 h) compared to that of the wild-type (20 min). It localizes in the nucleus, but is detectable at the

Product Details

	plasma membrane during mitosis and when certain mutations modulate cytoplasmic/nuclear distribution. Mutations arise with an average frequency of 70 % but incidence varies from zero in carcinoid lung tumors to 97 % in primary melanomas. High concentrations of p53 protein are transiently expressed in human epidermis and superficial dermal fibroblasts following mild ultraviolet irradiation. Positive nuclear staining with specific antibody has been reported to be a negative prognostic factor in breast carcinoma, lung carcinoma, colorectal, and urothelial carcinoma. Anti-p53 positivity has also been used to differentiate uterine serous carcinoma from endometrioid carcinoma as well as to detect intratubular germ cell neoplasia.
Purification:	Purified
Purity:	Protein G affinity chromatography

Target Details

Target:	p53 (TP53)
Alternative Name:	p53 / TP53 (TP53 Products)
Background:	This mAb reacts with an N-terminal epitope (aa 32-79) of both wild type and mutated p53. Mutation and/or allelic loss of p53 is one of the causes of a variety of mesenchymal and epithelial tumors. If it occurs in the germ line, such tumors run in families. In most transformed and tumor cells the concentration of p53 is increased 5-1000 fold over the minute concentrations (1000 Molecules cell) in normal cells, principally due to the increased half-life (4 h) compared to that of the wild-type (20 min). It localizes in the nucleus, but is detectable at the plasma membrane during mitosis and when certain mutations modulate cytoplasmic/nuclear distribution. Mutations arise with an average frequency of 70 % but incidence varies from zero in carcinoid lung tumors to 97 % in primary melanomas. High concentrations of p53 protein are transiently expressed in human epidermis and superficial dermal fibroblasts following mild ultraviolet irradiation. Positive nuclear staining with specific antibody has been reported to be a negative prognostic factor in breast carcinoma, lung carcinoma, colorectal, and urothelial carcinoma. Anti-p53 positivity has also been used to differentiate uterine serous carcinoma from endometrioid carcinoma as well as to detect intratubular germ cell neoplasia.
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

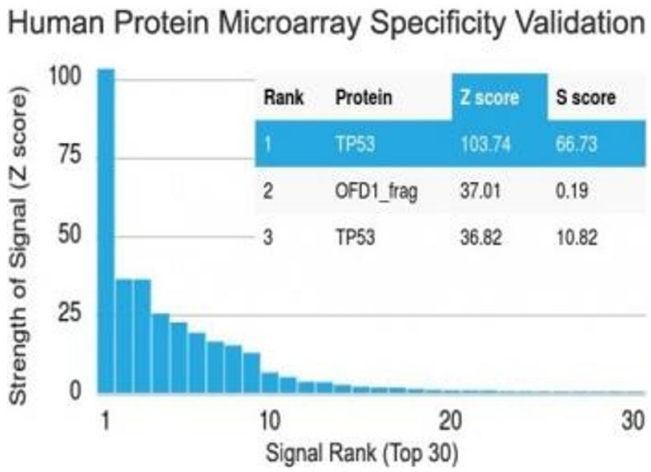
Application Details

Application Notes:	Variations in protocols, secondaries and substrates may require the p53 antibody to be titered up or down for optimal performance. 1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.\. Western blot: 0.5-1 µg/mL,FACS: 0.5-1 µg/million cells,Immunofluorescence: 1-2 µg/mL,IHC (FFPE): 0.5-1 µg/mL for 30 min at RT,Prediluted IHC only format: incubate for 30 min at RT (1)
Restrictions:	For Research Use only

Handling

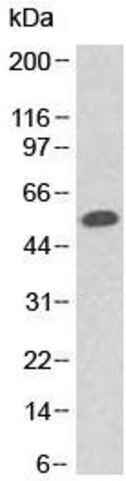
Concentration:	1 mg/mL
Buffer:	1 mg/mL in 1X PBS, BSA free, sodium azide free
Preservative:	Azide free
Storage:	4 °C,-20 °C
Storage Comment:	Store the p53 antibody at 2-8°C (with azide) or aliquot and store at -20°C or colder (without azide).

Images



Microarray

Image 1. Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using p53 antibody (clone PAb 1801). Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



Western Blotting

Image 2. Western blot testing of human A431 cell lysate with p53 antibody (clone Pab 1801). Expected molecular weight ~53 kDa.