p53 Antibody (N-Terminal Region) [clone PAb 1801] (V3514)

| Catalog No.	Formulation	Size
V3514-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3514-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3514SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3514IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

📕 Citations (21)　　　　　　　　　**Bulk quote request**

Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	PAb 1801
Purity	Protein G affinity chromatography
UniProt	P04637
Localization	Nuclear
Applications	Flow Cytometry : 0.5-1ug/10^6 cells Immunofluorescence : 1-2ug/ml Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 0.5-1ug/ml for 30 min at RT
Limitations	This p53 antibody is available for research use only.
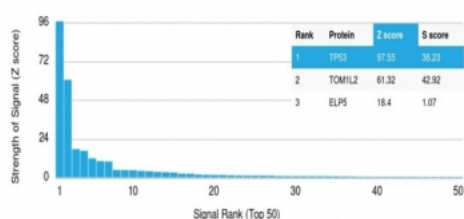
Protein array validation of the p53 antibody: Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using p53 antibody (clone PAb 1801).<P><P>Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged 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.
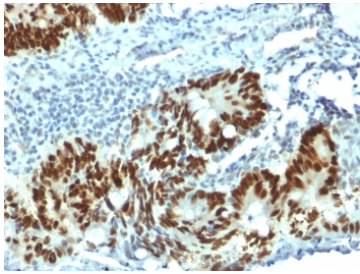
IHC testing of FFPE human colon carcinoma with p53 antibody (clone Pab 1801). Required HIER: boil tissue sections in 10mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min.
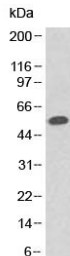
Western blot testing of human A431 cell lysate with p53 antibody (clone Pab 1801). Expected molecular weight ~53 kDa.

Description

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.

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.

Immunogen

Human p53 beta-galactosidase fusion protein was used as the immunogen for this antibody. Its epitope maps near the N-terminal end (within AA 32-79) of p53.

Storage

Store the p53 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

References (1)