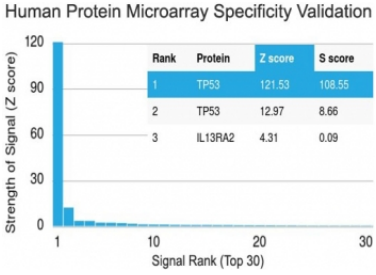
p53 Antibody (C-Terminal Region) [clone PAb 122] (V3510)

Catalog No.	Formulation	Size
V3510-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3510-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3510SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (12)

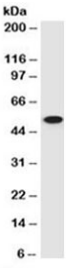
Bulk quote request

Availability	1-2 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	PAb 122
Purity	Protein G affinity chromatography
Gene ID	7157
Localization	Nuclear
Applications	ELISA (order BSA/sodium Azide-free Format For Coating) :
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 122).

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 blot testing of human 293 cell lysate with p53 antibody (clone PAb 122).

Description

This antibody is specific to a conserved determinant of the p53 protein. PAb 122 binds to the C-terminus (aa 370-378) of both wild type and mutated p53. When microinjected into nuclei, PAb 122 blocked re-entry into the S-phase of the cell cycle. 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. p53 binds to a DNA consensus sequence, the p53 response element, and it regulates normal cell growth cycle events by activating transcription of genes, involved either in progression through the cycle, or causing arrest in G1 when the genome is damaged. 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). The protein in the nucleus, but is detectable at the plasma membrane during mitosis and when certain mutations modulate cytoplasmic/nuclear distribution. Its the most commonly mutated gene in spontaneously occurring human cancers. 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.

Application Notes

Variations in protocols, secondaries and substrates may require the p53 antibody to be titered up or down for optimal performance.

Immunogen

SV40-transformed mouse B4 cells were used as the immunogen for this antibody. Its epitope maps near the C-terminal end (aa 370-378) of p53.

Storage

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

References (1)