Technical Data Sheet

Purified Mouse Anti-p53

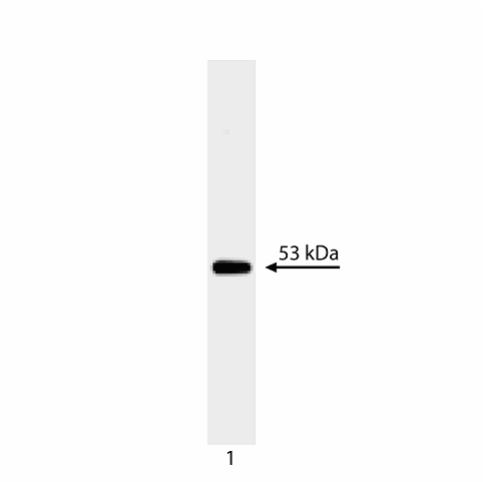
Product Information

Material Number:	**554166**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	PAb 240
Immunogen:	Human p53 aa. 14-289
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human, Mouse, Rat, Hamster, Monkey, Bovine, Chicken
Target MW:	53 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

p53 is a nuclear phosphoprotein which acts as a tumor suppressor by providing a cell cycle checkpoint for DNA damage during S-phase. Mutations in wildtype p53 can indirectly alter the DNA binding and transcription factor activity of p53. By altering expression of genes normally regulated by p53, these mutations can result in both a loss of tumor suppressor function and a gain of oncogenic function. The majority of mutations in the p53 gene are missense mutations which alter the identity of an amino acid. These mutations may alter the conformation and thus increase the stability of the mutant p53 protein. p53 is expressed in all vertebrate species examined. p53 may be overexpressed in transformed cell lines, where it forms complexes with viral oncogenes including SV40 large T antigen and the adenovirus protein, E1B. p53 migrates at ~53 kDa on SDS-PAGE.

PAb 240 reacts with a conformational epitope between amino acids 156 and 214 of native p53. As such, Pab 240 recognizes only certain mutant forms of p53, as determined by immunoprecipitation. It detects both mutant and wildtype p53 in western blot analysis and immunohistochemistry of frozen tissue sections. It is thought that p53 mutations exert a common conformational change which results in expression of the Pab 240-specific epitope on mutant p53 molecules. A recombinant fusion protein of p53 sequence including amino acids 14-289 was used as immunogen.



Western blot analysis of p53. *Lysate from SV40-transformed COS-7 cells were probed with anti-p53 (Cat. No. 554166). p53 is identified as a band of 53 kDa.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Immunoprecipitation	Tested During Development
Immunohistochemistry-paraffin	Not Recommended

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Recommended Assay Procedure:

SV40-transformed COS-7 monkey kidney cells (ATCC CRL-1651) or other SV40-transformed cell lines are suggested as positive controls. Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml, for Western blot protocols.

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols 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 deposits in plumbing.

References

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Vojtesek B, Bartek J, Midgley CA, Lane DP. An immunochemical analysis of the human nuclear phosphoprotein p53. New monoclonal antibodies and epitope mapping using recombinant p53. *J Immunol Methods.* 1992; 151(1-2):237-244.(Clone-specific: Immunohistochemistry)

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