Technical Data Sheet

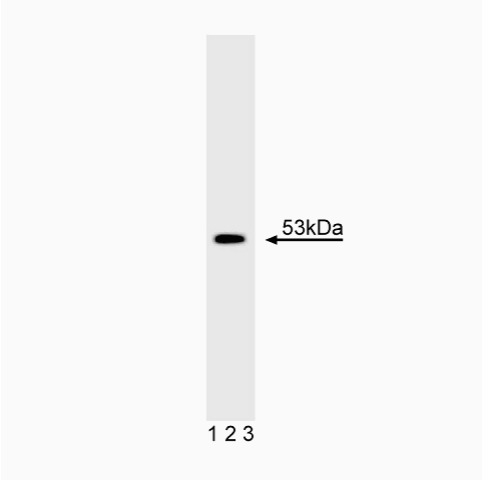
Purified Mouse Anti-p53

Product Information

Material Number:	**554147**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	PAb 122
Immunogen:	SV40-transformed mouse cell line BALB/c 3T3 clone 4 (B4)
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Monkey Reported: Human, Mouse, Rat, Hamster
Target MW:	53 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The gene for the nuclear phosphoprotein p53 is the most commonly mutated gene yet identified in human cancers.1 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 it forms specific complexes with several viral oncogenes including SV40 large T, E1B from adenovirus, and E6 from human papilloma virus. Wild type p53 plays a role as a checkpoint protein for DNA damage during the G1/S-phase of the cell cycle. However, it is still unclear, whether point mutated forms of p53 are simple null mutants and/or dominant negatively acting proteins. p53 migrates at a reduced molecular weight of 53 kDa. PAb 122 recognizes mammalian p53, including mouse, rat, hamster, monkey and human p53.2 Cells from the SV40-transformed mouse cell line BALB/c 3T3 clone 4 (B4) were used as immunogen. PAb 122 was originally evaluated by ELISA, immunoprecipitation, radioimmunoassays and indirect immunofluorescence of cultured cells.



Western blot analysis of p53. *Lysate from COS-7 SV40 transformed monkey kidney cells was probed with anti-p53 (clone PAb 122, Cat. No. 554147).*

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
Flow cytometry	Tested During Development
Immunofluorescence	Tested During Development
Immunoprecipitation	Tested During Development

Recommended Assay Procedure:

Applications include immunoprecipitation (1-2 µg/1x10e6 cells), western blot analysis (2 µg/ml), immunofluorescence microscopy of cultured cells and flow cytometry. COS-7 SV40 transformed monkey kidney cells (ATCC CRL-1651) or another SV40-transformed cell line are suggested as positive controls for detecting p53. COS-7 cell lysate is optimized for a western blot control and comes ready to load on an SDS-PAGE gel.

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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

Diller L, Kassel J, Nelson CE, et al. p53 functions as a cell cycle control protein in osteosarcomas. *Mol Cell Biol.* 1990; 10(11):5772-5781.(Clone-specific: Flow cytometry, Immunofluorescence)

Gurney EG, Harrison RO, Fenno J. Monoclonal antibodies against simian virus 40 T antigens: evidence for distinct sublcasses of large T antigen and for similarities among nonviral T antigens. *J Virol.* 1980; 34(3):752-763.(Clone-specific: Immunofluorescence, Immunoprecipitation)

Legros Y, Lacabanne V, d'Agay MF, Larsen CJ, Pla M, Soussi T. Production of human p53 specific monoclonal antibodies and their use in immunohistochemical studies of tumor cells. *Bull Cancer.* 1993; 80(2):102-110.(Clone-specific: Western blot)

Vogelstein B. Cancer. A deadly inheritance. *Nature.* 1990; 348(6303):681-682.(Biology)

Yewdell JW, Gannon JV, Lane DP. Monoclonal antibody analysis of p53 expression in normal and transformed cells. *J Virol.* 1986; 59(2):444-452.(Clone-specific: Immunofluorescence, Western blot)