Technical Data Sheet

PE Mouse Anti-p53 Set

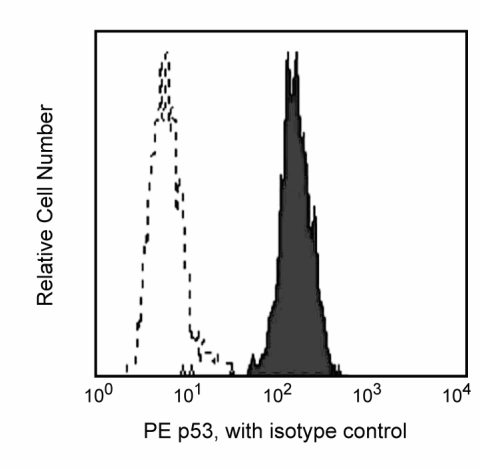
Product Information

Material Number:	**557027**
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat
Component:	**51-14215X**
Description:	PE Mouse Anti-p53
Size:	100 tests (1 ea)
Vol. per Test:	20 µl
Clone Name:	G59-12
Immunogen:	Recombinant full-length human p53
Isotype:	Mouse IgG1
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.
Component:	**51-13855X-5**
Description:	PE Mouse IgG1, κ Isotype Control
Size:	100 tests (1 ea)
Vol. per Test:	20 µl
Clone Name:	MOPC-21
Isotype:	Mouse IgG1, κ
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

p53 is a 53 kD nuclear phosphoprotein that acts as a tumor suppressor protein, and is involved in inhibiting cell proliferation when DNA damage occurs. The gene for p53 is the most commonly mutated gene yet identified in human cancers. 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 wild-type p53 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.

G59-12 recognizes mutant and wild type human, rat and mouse p53 tumor suppressor protein. Recombinant full-length human p53 was used as immunogen. The G59-12 clone was originally characterized by western blot analysis, immunoprecipitation and immunohistochemical staining. Clone MOPC-21 is a mouse IgG1 isotype control. The MOPC-21 antibody has unknown specificity.



Profile of permeabilized HT-29 colon adenocarcinoma cells analyzed on a FACScan™ (BDIS, San Jose, CA). *Cells were stained with anti-p53 PE (clone G59-12) or with an IgG1 isotype control.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

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Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Recommended Assay Procedure:

Positive control cell lines include SK-BR-3 human breast carcinoma cells (ATCC HTB-30), HT-29 human adenocarcinoma (ATCC HTB-38) and A431 human epidermal carcinoma cells (ATCC CRL-1555). Jurkat human T (leukemia) cells (ATCC TIB-152) or MCF-7 human breast carcinoma cells (ATCC HTB-22) are suggested as negative controls.

Product Notices

1. This antibody has been optimized and preassayed with its matched isotype control to be used at the recommended volume of 20 ul/test. Titration of the reagents or substituting with other (non-matched) isotype control is NOT recommended.
2. 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.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Gjerset RA, Arya J, Volkman S, Haas M. Association of induction of a fully tumorigenic phenotype in murine radiation-induced T-lymphoma cells with loss of differentiation antigens, gain of CD44, and alterations in p53 protein levels. *Mol Carcinog.* 1992; 5(3):190-198. (Clone-specific)

Stein LS, Stoica G, Tilley R, Burghardt RC. Rat ovarian granulosa cell culture: a model system for the study of cell-cell communication during multistep transformation. *Cancer Res.* 1991; 51(2):696-706. (Clone-specific)

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

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. (Biology)

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