Technical Data Sheet

Purified Mouse Anti-Human p53

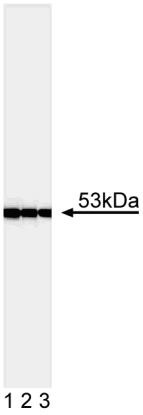
Product Information

Material Number:	**554157**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	G59-12
Immunogen:	Recombinant full-length human p53
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human, Non-human Primate Tested in Development: Mouse, Rat
Target MW:	53 kDa
Storage Buffer:	Aqueous buffered solution containing ≤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 the wildtype p53 forms specific complexes with several viral oncogenes including SV40 large T, E1B from adenovirus and E6 from human papilloma virus. Wildtype p53 plays a role as a checkpoint protein for DNA damage during the S-phase of the cell cycle. p53 migrates at a reduced molecular weight of 53 kDa.

Clone 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.



Western blot analysis of p53. *A SV-40 transformed rat granulosa cell lysate was probed with anti-human p53 (clone G59-12, Cat. No. 554157) at concentrations of 2.0 (lane 1), 1.0 (lane 2), and 0.5 µg/ml (lane 3). Clone G59-12 identifies p53 at 53 kDa.*

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested
Intracellular staining (flow cytometry)	Routinely Tested
Immunohistochemistry-formalin (antigen retrieval required)	Tested During Development
Immunohistochemistry-frozen	Tested During Development
Immunoprecipitation	Reported

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Recommended Assay Procedure:

Clone G59-12 conjugated to R-Phycoerythrin (PE) is suggested for flow cytometric analysis of p53 (Cat. No. 557027). Positive control cell lines include SKBR-3 human breast carcinoma cells (ATCC HTB-30) and A431 human vulval carcinoma cells (ATCC CRL-1555). Jurkat T cells (ATCC TIB-152) or MCF-7 human breast carcinoma cells (ATCC HTB-22) are suggested as negative controls. Positive immunostaining is seen in a high proportion of breast and colon carcinomas. p53 staining is not typically detected in normal skin, brain, kidney, lung, stomach, or breast tissue.

Suggested Companion Products

Catalog Number	Name	Size	Clone
557027	PE Mouse Anti-p53 Set	100 tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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