Technical Data Sheet

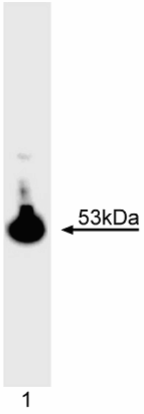
Purified Mouse Anti-Human p53

Product Information

Material Number:	**554293**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	DO-1
Immunogen:	Human p53
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human Tested in Development: Cow
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. 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. However, it is still unclear, whether point mutated forms of p53 are simple null mutants and/or dominant negatively acting proteins. DO-1 reacts with human wild-type and mutant p53. It cross-reacts with bovine p53 but does not cross-react with mouse or rat p53. DO-1 recognizes an epitope between amino acids 1 and 45 of all known forms of human p53. Human recombinant p53 protein was used as immunogen.



Western blot analysis of p53. *Lysate from COS-7 SV40 transformed monkey kidney cells was probed with anti-p53 (clone DO-1, Cat. No. 554293).*

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-formalin (antigen retrieval required)	Tested During Development
Immunohistochemistry-frozen	Tested During Development
Immunoprecipitation	Tested During Development

Recommended Assay Procedure:

Applications include immunoprecipitation (1-2 µg/1x10^6 cells), western blot analysis (2 µg/ml), and immunohistochemistry of frozen and formalin-fixed paraffin-embedded tissue sections (5-20 µg/ml). Positive control cell lines include COS-7 SV40 transformed monkey kidney cells (ATCC CRL-1651), SK-BR-3 human breast carcinoma cells (ATCC HTB-30), and A431 human vulval carcinoma cells (ATCC CRL-1555). 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.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
611447	A431 Cell Lysate	500 µg	(none)

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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Xerri L, Bouabdallah R, Camerlo J, Hassoun J. Expression of the p53 gene in Hodgkin's disease: dissociation between immunohistochemistry and clinicopathological data. *Hum Pathol.* 1994; 25(5):449-454.(Clone-specific: Immunohistochemistry)