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Performance guaranteed

p53 Monoclonal Antibody (B-P3)

Catalog Number **AHO0032**

Product data sheet

Details	
Size	100 µg
Host/Isotope	Mouse / IgG2a
Class	Monoclonal
Type	Antibody
Clone	B-P3
Immunogen	Purified recombinant human p53.
Conjugate	Unconjugated
Form	Liquid
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

Species Reactivity	
Species reactivity	Human

Tested Applications	Dilution *
ELISA (ELISA)	Assay-dependent
Functional Assay (FN)	Assay-dependent
Immunohistochemistry (IHC)	Assay-dependent
Immunoprecipitation (IP)	Assay-dependent
Western Blot (WB)	Assay-dependent

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

Recognizes wild type and mutant p53, cross-reacts with p53 in other primates. The epitope is within residues 18-30 of human p53.

Background/Target Information

The tumor suppressor protein, p53, is a sequence specific transcription factor that is activated by cellular stress. p53 mediates cell cycle arrest or apoptosis in response to DNA damage or starvation for pyrimidine nucleotides. p53 is up-regulated in response to stress signals and stimulated to activate transcription of specific genes, resulting in expression of p21waf1 and other proteins involved in G1 or G2/M arrest. The structure of p53 comprises an N-terminal transactivation domain, a central DNA-binding domain, an oligomerisation domain, and a C-terminal regulatory domain. There are various phosphorylation sites on p53, of which the phosphorylation at Ser15 is important for p53 activation and stabilization. p53 has been characterized to play a role in blocking the proliferative action of damaged cells and act as an anticancer agent. Phosphorylation of Ser392 in p53 has been shown to associate with the formation of human tumors. In addition, p53 has also been linked to the effects of aging and oxidative stress and an increase in p53 has been linked to deficits in LTP (Long Term Potentiation) in learning and memory. p53 is found in very low levels in normal cells, however, in a variety of transformed cell lines, it is expressed in high amounts, and believed to contribute to transformation and malignancy. Mutants of p53 that frequently occur in a number of different human cancers fail to bind the consensus DNA binding site, and cause the loss of tumor suppressor activity. Alterations of the TP53 gene occur not only as somatic mutations in human malignancies, but also as germline mutations in some cancer-prone families such as Li-Fraumeni syndrome.

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