Acris Antibodies GmbH

Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info@acris-antibodies.com

US office:
Acris Antibodies, Inc.
San Diego, CA
UNITED STATES
Phone: +1-858-888-7900
Fax: +1-858-888-7904
US-info@acris-antibodies.com

Monoclonal Antibody to p53 (TP53) (Wild type + Mutant) (18-30) - FITC

Alternate names: Cellular tumor antigen p53, NY-CO-13, Phosphoprotein p53, Tumor suppressor p53

Catalog No.: BM4079F

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

Background: The tumour suppressor protein p53 is a key element of intracellular anticancer protection. It mediates cell cycle arrest or apoptosis in response to DNA damage or to starvation for pyrimidine nukleotides. It is up-regulated in response to these 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, or proteins that trigger apoptosis, such as Bcl-2. The structure of p53 comprises N-terminal transactivation domain, central DNA-binding domain, oligomerisation domain, and C-terminal regulatory domain. There are various phosphorylation sites on p53, of which the phosphorylation at Ser15 is important for p53 activation and stabilization.

Uniprot ID: P04637

NCBI: NP_000537.3

GeneID: 7157

Host / Isotype: Mouse / IgG2a

Clone: BP53-12

Immunogen: Bacterially expressed full-length wild-type p53.

Format:
State: Liquid purified Ig fraction
Buffer System: Phosphate buffered saline (PBS), pH~7.4 with 15 mM Sodium Azide as preservative.
Label: FITC – Fluorescein Isothiocyanate

Applications: Immunofluorescence: This conjugate is routinely tested by Flow Cytometry analysis using permeabilized transient wild-type p53-tranfectants.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: The antibody recognizes defined epitope (aa 16-25) on human p53, a 50 kDa tumour suppressor found in increased amounts in a wide variety of transformed cells. It is frequently mutated or inactivated in many types of cancer.
Species: Human, non-Human Primates.
Other species not tested.

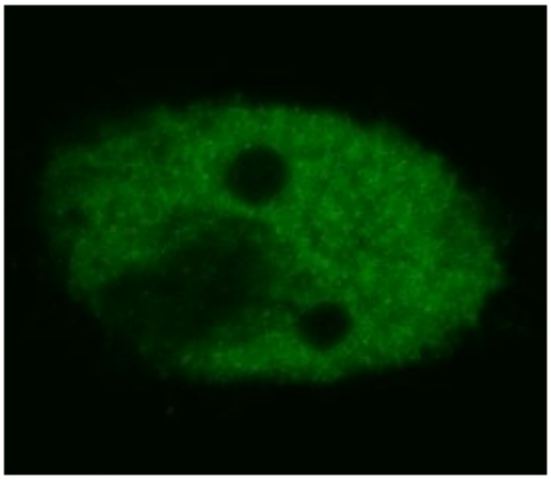
Storage:

Store the antibody undiluted at 2-8 °C.
DO NOT FREEZE!
This product is photosensitive and should be protected from light.
Shelf life: one year from despatch.

General References:

Agarwal ML, Agarwal A, Taylor WR, Stark GR: p53 controls both the G2/M and the G1 cell cycle checkpoints and mediates reversible growth arrest in human fibroblasts. Proc Natl Acad Sci U S A. 1995 Aug 29;92(18):8493-7.
Agarwal ML, Agarwal A, Taylor WR, Chernova O, Sharma Y, Stark GR: A p53-dependent S-phase checkpoint helps to protect cells from DNA damage in response to starvation for pyrimidine nucleotides. Proc Natl Acad Sci U S A. 1998 Dec 8;95(25):14775-80.
Taylor WR, DePrimo SE, Agarwal A, Agarwal ML, Schönthal AH, Katula KS, Stark GR: Mechanisms of G2 arrest in response to overexpression of p53. Mol Biol Cell. 1999 Nov;10(11):3607-22.
Taylor WR, Agarwal ML, Agarwal A, Stacey DW, Stark GR: p53 inhibits entry into mitosis when DNA synthesis is blocked. Oncogene. 1999 Jan 14;18(2):283-95.
Tanigawa S, Fujii M, Hou DX: Stabilization of p53 is involved in quercetin-induced cell cycle arrest and apoptosis in HepG2 cells. Biosci Biotechnol Biochem. 2008 Mar;72(3):797-804.
Bartek J, Bartkova J, Vojtesek B, Staskova Z, Lukas J, Rejthar A, Kovarik J, Midgley CA, Gannon JV, Lane DP: Aberrant expression of the p53 oncoprotein is a common feature of a wide spectrum of human malignancies. Oncogene. 1991 Sep;6(9):1699-703.
Bartkova J, Bartek J, Lukas J, Vojtesek B, Staskova Z, Rejthar A, Kovarik J, Midgley CA, Lane DP: p53 protein alterations in human testicular cancer including pre- invasive intratubular germ-cell neoplasia. Int J Cancer. 1991 Sep 9;49(2):196-202.
Dolezalova H, Vojtesek B, Kovarik J: Epitope analysis of the human p53 tumour suppressor protein. Folia Biol (Praha). 1997;43(1):49-51.

Pictures:



Confocal Microscopy of Human HeLa cells using BM4079F p53 antibody (BP53-12, FITC). The expression of p53 protein was enhanced by intercalating reagent. Cells were fixed and permeabilized before incubation with the p53-FITC antibody. *Photo provided by Dr. Hodny, Inst. of Experimental Medicine, Prague, Czech Republic.*