P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

p53; Clone BP53-12
(Concentrate)

Availability/Contents:

Item #	Volume
A00109-C	1 ml

Description:

Species:	Mouse
Immunogen:	Full-length recombinant human p53 was used as immunogen for this antibody.
Clone:	BP53-12
Isotype:	IgG2a, Kappa
Concentration:	100µg/ml.
Format:	This antibody is provided in a phosphate buffered saline containing 1% BSA.
Specificity:	This p53 antibody recognizes a 53kDa protein, which is identified as p53 suppressor gene product. The antibody reacts with the mutant as well as the wild form of p53 under denaturing and non-denaturing conditions. The epitope maps within the N-terminus (aa 20-25) of p53 oncoprotein. Nuclear protein p53 plays an essential role of cell cycle, specifically in the transition from G0 to G1. p53 is a DNA-binding protein containing DNA-binding, oligomerization and transcription activation domains. It is postulated to bind as a tetramer to a p53-binding site and activate expression of downstream genes that inhibit growth and/or invasion, and thus function as a tumor suppressor. Mutations in the evolutionarily conserved condons of the p53 tumor suppressor gene are common in diverse types of human cancer, which includes cancer of colon, lung, esophagus, breast, liver, brain, reticuloendothelial tissues, and hemopoietic tissues. p53 maps to the 17p13.1 region of the human chromosome. Consistent with its role as a tumor suppressor gene in a wide variety of tissue types, p53 performs several different critical functions in regulating cellular growth, replication, and death. p53 positively regulates transcription by binding to specific DNA consensus sequences. These sequences are associated with several known genes including the human ribosomal gene cluster, muscle creatine kinase gene, WAF-1/CIPI/p21, and cyclin G. This sequence-specific transcriptional activation is associated with the induction of growth suppression. p53 also negatively regulates transcription of genes which have TATA box initiated promoters, likely by binding to protein components of the basal transcription machinery. Possibly through the general mechanism of transcriptional regulation, p53 affects cell behavior via several specific pathways. Wild-type p53 suppresses cell proliferation by blocking the transition from G1 to S-phase. This may occur through p53 mediated induction of a universal inhibitor of cyclin-dependent kinases, WAF-1 or CIPI. Increased expression of WAF-1/CIPI/p21 serves to inhibit phosphorylation of Rb protein by cdk complexes, resulting in failure to progress from G1 to S-phase.
Species Reactivity:	Human. Will not cross-react with mouse or rat.
Cellular Localization:	Nuclear.
Titer/Working Dilution:	Immunohistochemistry: 1:50 – 1:100 Western Blot: 1-3 µg/ml
Microbiological State:	This product is not sterile.

Storage: 2° C – 8° C

ScyTek Laboratories, Inc.
205 South 600 West
Logan, UT 84321
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CE IVD

EC REP EmergoEurope (31)(0) 70 345-8570
Molsnstraat 15
2513 BH Hague, The Netherlands

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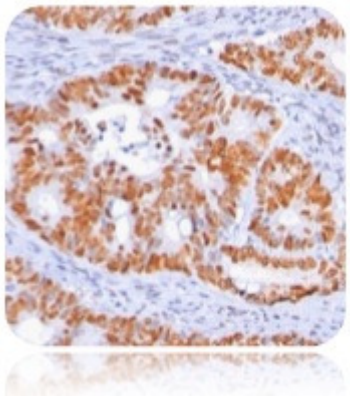
Uses/Limitations:

Not to be taken internally.
For Research Use Only.
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Do not use if reagent becomes cloudy.
Do not use past expiration date.
Use caution when handling reagents.
Non-Sterile.



Ordering Information and Current Pricing at www.scytek.com

Procedure:

1. **Tissue Section Pretreatment:** Staining of formalin fixed, paraffin embedded tissue sections is enhanced by pretreatment with Citrate Plus (ScyTek catalog# CPL500) or 10mM citrate buffer, pH 6.0 (ScyTek Catalog# CBB500, see IFU for instructions).

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).
Do not pipette by mouth.
Avoid contact of reagents and specimens with skin and mucous membranes.
Avoid microbial contamination of reagents or increased nonspecific staining may occur.
This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.

References:

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