

Anti-p53 Phospho-Ser315 antibody, monoclonal (#18)

71-117 50 μ g

p53 mutants are found in more than half of human cancers and are considered as the most important human cancer related gene. *p53* is detected at 53kD position by electrophoresis and is composed of 393 amino acids. In the unstressed normal cells the *p53* level is low and it is inactive. However, with stress, especially with DNA damage, it is activated to promote arrest of cell cycle and repair of DNA damage, or induction of apoptosis. The functions and stability of *p53* are regulated by the phosphorylation of serine and threonine, and the acetylation of lysine at various sites in the molecule.

Ser315 is phosphorylated by aurora kinase and cycline-dependent kinases when cells are subjected to stress such as DNA damage and microtubule disruption by nocodazole (ref 1, 2 & 3). However the effect of the phosphorylation on the function of *p53* is largely unknown

This product is the purified IgG fraction obtained from serum free culture medium of mouse hybridoma (clone #18) which produces monoclonal antibody that specifically recognizes human *p53* protein with phosphorylated Ser315.

Application

- 1) Western blotting (x1,000~2000 dilution)
- 2) ELISA
- 3) Immuno-precipitation and indirect immuno-staining of cells have not been tested.

Specification

Antigen: synthetic peptide containing phosph-Ser315 Isotype: mouse IgG2b (κ)

Form: Purified monoclonal antibody (IgG) 1mg/ml in PBS (ph 7.4), 50% glycerol

Storage: -20 °C (long period, -70°C)

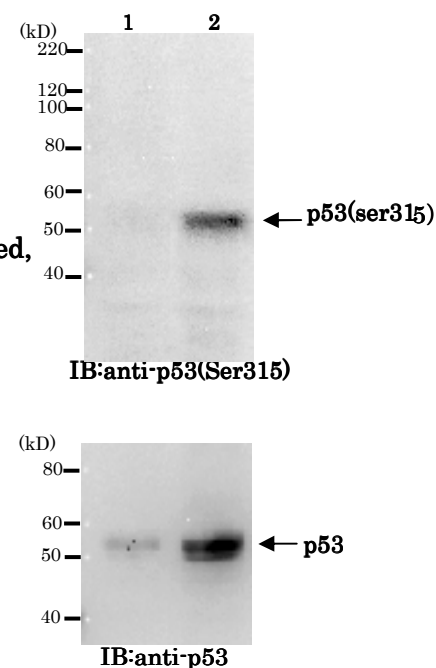
References:

1. Katayama H. et al. Nature Genet. 36:55 (2004)
2. Blaydes JP. J Biol Chem 276:4699 (2001)
3. Bode AM & Dong Z. Nature Rev. Cancer 4: 793 (2004)

Fig.1 Identification of *p53* protein, whose Ser315 is phosphorylated, by Western blotting.

Samples: Crude cell extracts of MCF7 untreated (lane 1) and treated with nocodazole at 100 ng/ml for 48 h (lane 2).

The lower panel is whole *p53* protein identified by omnipotent anti-*p53* antibody (DO-1).



<Distributed by>: SCETI K.K. DF Kasumigaseki Place, 3-6-7 Kasumigaseki,
Chiyoda-ku Tokyo 100-0013 JAPAN
Tel: +81-3-5510-2347 Fax: +81-3-5510-0134
E-mail: exp-pet@sceti.co.jp URL: www.sceti.co.jp/export/

<Manufactured by>: BioAcademia, Inc. 7-7-18 Saito-Asagi, Ibaraki, Osaka 567-0085, JAPAN