

Anti-p53 acetyl-K120 antibody, monoclonal (10E5)

71-131 50 µg

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.

Acetylation of lysine 120 (acetyl-K120) of *p53* occurs rapidly after DNA damage and is catalyzed by the MYST family acetyltransferases hMOF and TIP60, and activates transcription of proapoptotic genes, *BAX* and *PUMA* (ref 1, 2 & 3).

This product is the purified IgG fraction obtained from serum-free culture medium of mouse hybridoma (clone 10E5), which produces monoclonal antibody that specifically recognizes human *p53* protein with acetylated Lys120.

Applications

- 1) Western blotting (~1 µg/ml)
- 2) ELISA
- 3) Immuno-precipitation and indirect immuno-staining of cells have not been tested.

Specification

Antigen: synthetic peptide containing acetyl-Lys315 Isotype: mouse IgG1 (κ)

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

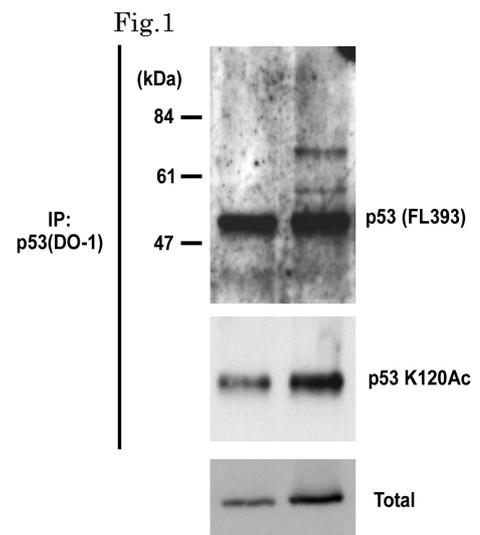
Storage: -20 °C (long period, -70°C)

References:

1. Tyteca S. et al. Mol Cell 24: 807-808 (2006)
2. Tang Y. et al. Moll Cell 24: 827-839 (2006)
3. Sykes SM. Moll Cell 24: 841-851 (2006)

Fig.1 Identification of p53 protein, whose Lys120 is acetylated, by Western blotting with 10E5 monoclonal antibody.

Samples are crude lysates of HCT116 cells: Left lanes are control. Right lanes are cells treated with siRNA to knockdown the expression of a Tip60 interacting protein. Total *p53* was immunoprecipitated with omnipotent anti-*p53* monoclonal antibody (DO-1) from the crude extracts and analyzed by western blotting with anti-*p53* antibody (FL393) (upper panel) or anti-*p53* acetyl-K120 monoclonal antibody (10E5) (middle panel). The lower panel shows total *p53*



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