

## Anti-p53 Phospho-Ser20 antibody, monoclonal (17B6)

71-113 100ug

*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 of *p53* are regulated by phosphorylation of serine and threonine, and acetylation of lysine at various sites in the molecule (1).

*p53* at Ser20 is phosphorylated by Chk1 and Chk2 kinases and this enhances tetramerization, stability and activity of *p53* (2, 3).

### Applications

- 1) Western blotting (~ 1ug/ml)
- 2) ELISA

### Specification

**Antigen:** synthetic peptide containing phosph-Ser20

**Isotype:** mouse IgG1 ( $\kappa$ )

**Form:** purified monoclonal antibody (IgG) 1mg/ml in PBS, 50% glycerol, filter-sterilized

**Reaction:** human *p53* phosphorylated at Ser20

**Storage:** -20 °C (long period, -70°C)

**Data Link** UniProtKB/Swiss-Prot [P04637](https://www.uniprot.org/entry/P04637) (P53\_HUMAN)

### References

1. Bode AM & Dong Z "Post-translational modification of *p53* in tumorigenesis" *Nature Rev Cancer* **4**: 793-805 (2004) PMID: [15510160](https://pubmed.ncbi.nlm.nih.gov/15510160/)
2. Shieh SY *et al* "DNA damage-inducible phosphorylation of *p53* at N-terminal sites including a novel site, Ser20, requires tetramerization" *EMBO J* **18**: 1815-1823 (1999) PMID: [10202145](https://pubmed.ncbi.nlm.nih.gov/10202145/)
3. Hirao A "DNA damage-induced activation of *p53* by the checkpoint kinase Chk2" *Science* **287**: 1824-1827 (2000) PMID: [10710310](https://pubmed.ncbi.nlm.nih.gov/10710310/)

### Fig.1 Identification of *p53* phospho-Ser20 with monoclonal antibody 17B6 by Western blotting.

The lysates of H1299 cells (*p53* non-producing) transfected either with Flag vector (left lane), Flag-*p53* (wild-type) expressing plasmid (middle lane) or Flag-*p53* mutant (Ser20Ala) expressing plasmid (right lane) were immunoprecipitated with anti-Flag antibody and then analyzed by Western blotting with anti-*p53* p-S20 monoclonal antibody, 17B6, (upper panel) or with pan-tropic *p53* antibody (lower panel).

**Related Products:** Many antibodies specific to phosphorylated and acetylated oncogene products

[#71-115 anti-\*p53\* \(p-S46\)](#)      [#71-117 anti-\*p53\* \(p-S315\)](#)

[#71-131 anti-\*p53\* \(Ac-K120\)](#)      [#71-133 anti-\*p53\* \(Ac-K382\)](#)

