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Datasheet for ABIN3201005  
**anti-p53 antibody (pSer46)**

9 Images

3 Publications

### Overview

Quantity:	100 µg
Target:	p53 (TP53)
Binding Specificity:	pSer46
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This p53 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

### Product Details

Immunogen:	Synthetic peptide containing pSer46 of p53
Clone:	36
Isotype:	IgG1 kappa
Cross-Reactivity (Details):	Not tested in other species.
Purification:	Purified from serum-free culture medium of hybridoma (#36) by proprietary chromatography procedures under mild conditions.
Sterility:	Sterile filtered

### Target Details

Target:	p53 (TP53)
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## Target Details

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Alternative Name: [p53 \(TP53 Products\)](#)

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Background: 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. Among the phosphorylation sites, Ser46 is phosphorylated when DNA damage is so severe as to become unreparable, which leads to apoptosis by activating transcription of proapoptotic genes such as p53AIP1. As to the kinase of phosphorylation of Ser46, involvement of DYRK2 and ATM have been implicated.

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UniProt: [P04637](#)

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Pathways: [p53 Signaling](#), [MAPK Signaling](#), [PI3K-Akt Signaling](#), [Apoptosis](#), [AMPK Signaling](#), [Chromatin Binding](#), [ER-Nucleus Signaling](#), [Positive Regulation of Endopeptidase Activity](#), [Hepatitis C](#), [Protein targeting to Nucleus](#), [Autophagy](#), [Warburg Effect](#)

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## Application Details

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Application Notes: 1) Western blotting: 1,000~2,000 dilution  
2) Immunohistochemistry (assay dependent)  
3) ELISA  
Other applications have not been tested.

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Restrictions: For Research Use only

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## Handling

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Format: Liquid

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Concentration: 1 mg/mL

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Buffer: PBS (x1), 50 % glycerol. Azide and carrier free.

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Preservative: Azide free

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Storage: -20 °C

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Storage Comment: Upon arrival centrifuge briefly and store at -20 C.

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## Publications

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Product cited in:

Taira, Yamamoto, Yamaguchi, Miki, Yoshida: "ATM augments nuclear stabilization of DYRK2 by inhibiting MDM2 in the apoptotic response to DNA damage." in: **The Journal of biological chemistry**, Vol. 285, Issue 7, pp. 4909-19, (2010) ([PubMed](#)).

Kodama, Otsubo, Hirota, Yokota, Enari, Taya: "Requirement of ATM for rapid p53 phosphorylation at Ser46 without Ser/Thr-Gln sequences." in: **Molecular and cellular biology**, Vol. 30, Issue 7, pp. 1620-33, (2010) ([PubMed](#)).

Taira, Nihira, Yamaguchi, Miki, Yoshida: "DYRK2 is targeted to the nucleus and controls p53 via Ser46 phosphorylation in the apoptotic response to DNA damage." in: **Molecular cell**, Vol. 25, Issue 5, pp. 725-38, (2007) ([PubMed](#)).

## Images

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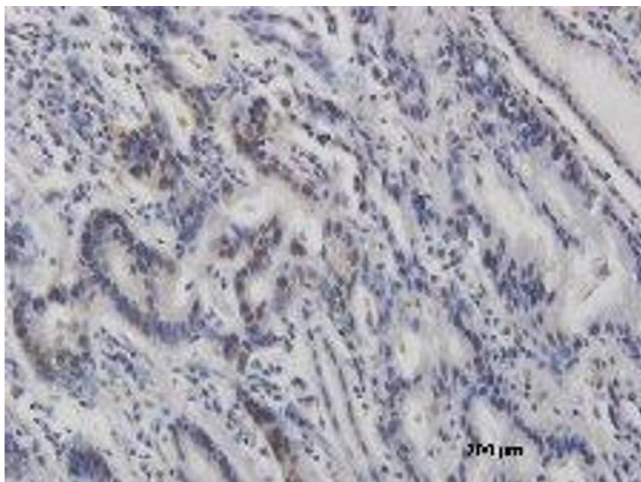
### Western Blotting

Image 1.



### Immunohistochemistry

Image 2.



**Western Blotting**

**Image 3.**



Please check the [product details page](#) for more images. Overall 9 images are available for ABIN3201005.