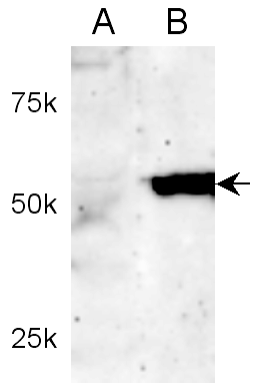
Product Data Sheet

Product Name:	**Anti-p53 (pSer^{20}), human**
Catalog Number:	54427-025
Lot Number:	See label on vial
Product Description:	This rabbit polyclonal antibody is supplied as an epitope-affinity purified rabbit IgG 50 μg in 250 μl (0.2 mg/ml) of 1x PBS (pH 7.4) containing 0.05% sodium azide.
Immunogen:	A synthetic phosphopeptide (ETFpSDLW) corresponding to human p53 at the phosphorylated site of Serine 20.
Species Reactivity:	This antibody was designed for human p53 phosphorylated at the position of Serine 20. The antibody was evaluated for specificity with a dot blot assay using synthetic p53 peptides. It only recognized the phosphorylated serine 20 of human p53, not other phosphorylated sites or non-phosphorylated p53.
Application Notes:	The following concentration ranges are recommended starting points for this product. The investigator should determine the optimal working concentrations for specific applications.

ELISA for immunizing peptide:	1: 5,000-20,000
Western Blot:	1: 500-1,000
Immunohistochemistry*:	1: 50-200

(* Recommended but not yet tested.)



Western blot analysis of the extracts from human Cos-7 cells untreated (A) or treated (B) with hydroxyurea (40 mM, incubation for 12 hours) by the anti-p53 (pSer20) antibody (Cat. # 54427).

Background:

The p53 tumor suppressor protein regulates cell cycle progression and cell survival in response to DNA damage and certain other cellular stresses by arresting cell cycle progression or by inducing apoptosis (1, 2). One of the most important mammalian cell cycle checkpoint proteins is the tumor suppressor p53. In normal, undamaged cells, p53 is rapidly degraded. Treating cells with a variety of DNA damage-inducing agents induces a transient accumulation of p53 protein and activates it as a transcription factor. It is frequently lost or mutated in multiple types of human cancer (3, 4). Human p53 protein has been shown to be phosphorylated at several N-terminal and C-Terminal sites that affect site-specific DNA binding and interaction with other cellular and viral proteins in vitro (5, 6). Serines 6, 9, 15, 20, 33, 37 phosphorylation occur after cells are exposed either to ionizing radiation or to UV light (7, 8).

References:

1. Levine AJ (1997) Cell 88:323-331
2. Prives C et al (1999) J Pathol. 187:122-126
3. Brown JM et al (1999) Cancer Res. 59:1391-1399
4. Albrechtsen N et al (1999) Oncogene 18:7706-7717
5. Banin S et al (1998) Science 281: 1674-1677
6. Canman CE et al (1998) Science 281: 1677-1679
7. Burns TF et al J. cell Physiol. 181: 231-239
8. Oren M et al (1999) J. Biol. Chem 274:36031-36034

Storage:

Store at 2-8 °C for up to 12 months. Avoid repeated freezing and thawing.

Related Products:

Check our website for more anti-p53 antibodies.

Compatible Secondary Antibodies:

Catalog #	Goat anti-Rabbit IgG (H+L)
28176	Unconjugated
28176-AMCA	AMCA Labeled
28176-FAM	FAM Labeled
28176-FITC	FITC Labeled
28176-TAMRA	TAMRA Labeled
28176-H488	HiLyte Fluor™ 488 Labeled
28176-H555	HiLyte Fluor™ 555 Labeled
28176-H594	HiLyte Fluor™ 594 Labeled
28176-H647	HiLyte Fluor™ 647 Labeled
28176-H680	HiLyte Fluor™ 680 Labeled
28176-H750	HiLyte Fluor™ 750 Labeled
61056-H488	Highly Cross-adsorbed, HiLyte Fluor™ 488 Labeled
61056-H555	Highly Cross-adsorbed, HiLyte Fluor™ 555 Labeled
61056-H594	Highly Cross-adsorbed, HiLyte Fluor™ 594 Labeled
61056-H647	Highly Cross-adsorbed, HiLyte Fluor™ 647 Labeled
61056-H680	Highly Cross-adsorbed, HiLyte Fluor™ 680 Labeled
61056-H750	Highly Cross-adsorbed, HiLyte Fluor™ 750 Labeled
28177	Highly Cross-adsorbed, HRP Labeled
28178	Highly Cross-adsorbed, AP Labeled
28179	Highly Cross-adsorbed, Biotin Labeled

This product is for *in vitro* research use only.