

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat p53.
Source	Monoclonal Mouse IgG _{2B} Clone # 184721
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human p53 Asp7-Asp393 Accession # P04637
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Immunoprecipitation	1-2 µg/500 µg cell lysate	CEM human T-lymphoblastoid cell line, see our available Western blot detection antibodies

DATA

<p>Western Blot</p> <p>Detection of Human p53 by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line mock-treated (-) or treated (+) with 1 µM camptothecin (CPT) for 1 hour. Human p53 was immunoprecipitated using Mouse Anti-Human/Mouse/Rat p53 Monoclonal Antibody (Catalog # MAB1355). PVDF membrane was probed with HRP-conjugated Anti-Human/Mouse/Rat Polyclonal Antibody (Catalog # HAF1355). A specific band for p53 was detected at approximately 53 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p> <p>p53 in HeLa Human Cell Line. p53 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human/Mouse/Rat p53 Monoclonal Antibody (Catalog # MAB1355) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The p53 tumor suppressor protein is a multi-functional transcription factor that regulates cellular decisions regarding proliferation, cell cycle checkpoints, and apoptosis. The importance of p53 is underscored by its mutation in over 50% of human cancers. Mice that lack one or both copies of p53 also showed an increased incidence of tumors, which makes the p53 deficient mouse a model system for studying cancer generation and progression.