

Purified anti-p53 Antibody

Catalog# / Size	645701 / 25 µg 645702 / 100 µg
Clone	DO-1
Other Names	Tumor protein p53 (TP53)
Isotype	Mouse IgG2a, κ
Description	p53 is a 53 kD protein that forms tetramers and functions as a tumor suppressor and transcriptional activator of genes that inhibit growth and/or invasion, cell cycle checkpoint after irradiation, DNA repair, apoptotic induction, signal transduction, and cell adhesion. This protein is localized to the nucleus when activated and can be upregulated by genotoxic or other cellular stresses. p53 is modified by phosphorylation, acetylation, ribosylation, ubiquitination, and sumoylation; ubiquitination targets p53 for degradation via mdm2. This protein interacts with a variety of proteins including mdm2, mdmx, topoisomerase I, PML3, Bcl-X _L , Bcl-2, Chk1, JNK, p38, HIPK2, CK2, DNA-PK, p300/CBP, PCAF, PARP1, and HDAC1-3. Mutant p53 associates with p63 and p73.

Product Details

Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	P53 N-terminal linear epitope aa 20-25
Formulation	This antibody is provided in phosphate-buffered solution containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	WB - <i>Quality tested</i> ICC - <i>Verified</i> IP - <i>Reported in the literature, not verified in house</i>
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . Western blotting, suggested working dilution(s): Use 0.5 - 1 µg per ml antibody for each mini-gel. For immunocytochemistry, a concentration range of 2.0 - 5.0 µg/ml (Dilution 1:100 - 1:250) is recommended. It is recommended that the reagent be titrated for optimal performance for each application.
Application References	1. Vojtesek B, et al. 1992. J Immuno Methods 151:237
(PubMed link indicates BioLegend citation)	2. Stephen CW, et al. 1995. J Mol Biol 248:58
RRID	AB_1595606 (BioLegend Cat. No. 645701) AB_2206462 (BioLegend Cat. No. 645702)

Antigen Details

Structure	Tetramer; 53 kD
Distribution	Nuclear when activated

Function	Tumor suppressor, transcription factor regulates cell cycle checkpoint, apoptosis, DNA integrity
Interaction	mdm2, mdmx, Topol, PML3, Bcl-X _L , Bcl-2, Chk1, JNK, p38, HIPK2, CK2, DNA-PK, p300/CBP, PCAF, PARP1, HDAC1-3; mutant p53 associates with p63, p73
Cell Type	Mesenchymal Stem Cells
Biology Area	Cell Biology, DNA Repair/Replication, Stem Cells, Transcription Factors
Antigen References	1. Vogelstein B, et al. 1992. Cell. 70:523. 2. Shieh S, et al. 1997. Cell. 91:325. 3. Mihara M, et al. 2003. Mol. Cell 11:577. 4. Saito S, et al. 2003. J. Biol. Chem. 278:37536.
Gene ID	7157

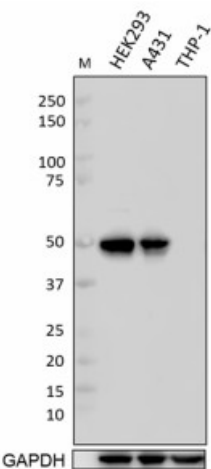
Related Protocols

[Western Blotting Protocol](#)

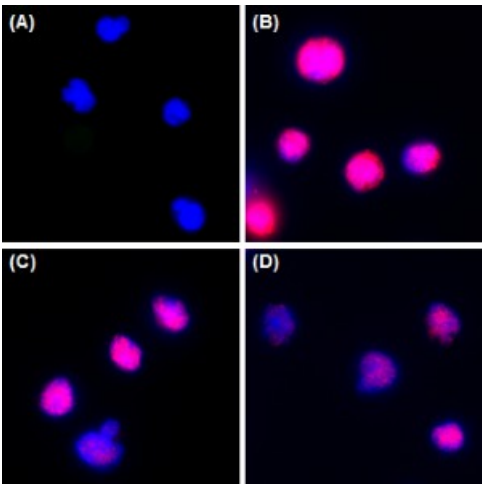
Other Formats

Alexa Flour® 594 anti-p53, Go-ChIP-Grade™ Purified anti-p53

Product Data



Whole cell extracts (15 µg total protein) from HEK293, A431, and THP-1 were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to PVDF, and probed with 1.0 µg/mL (1:500 dilution) of Purified anti-p53 Antibody, clone DO-1, overnight at 4°C. Proteins were visualized by chemiluminescence detection using HRP goat anti-mouse IgG Antibody (Cat. No. 405306) at a 1:3000 dilution. Direct-Blot™ HRP anti-GAPDH Antibody (Cat. No. 607904) was used as a loading control at a 1:25000 dilution (lower). Lane M: Molecular Weight marker. Cell lysates were loaded in descending of predicted p53 expression; Predicted expression data was obtained from Human Protein Atlas.



Immunofluorescence of Daudi cells with (A) Mouse IgG2b, κ Isotype control (Cat. No. 400302) or (B-D) TP-53 primary antibody. Alexa Fluor® 594 (Red) Goat anti-Mouse IgG (Cat. No. 405326) was used as secondary antibody. Nuclei were counterstained with DAPI (Blue, Cat. No. 422801). The image was captured with a 60X objective. Exposure time (Seconds) is 1/12. Concentrations for (A, B) is 5 µg/ml, (C) is 2 µg/ml, (D) is 1 µg/ml.

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