

Product datasheet for **TA329634**

p53 (TP53) Mouse Monoclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB, ChIP
Reactivity:	Human
Host:	Mouse
Isotype:	IgG
Clonality:	Monoclonal
Formulation:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Note that this product is shipped as lyophilized powder to China customers.

Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	53 kDa
Gene Name:	tumor protein p53
Database Link:	NP_000537 Entrez Gene 7157 Human P04637

Background: Tumor protein p53 responds to diverse cellular stresses to regulate target genes that induce cell cycle arrest, apoptosis, senescence, DNA repair, or changes in metabolism. p53 protein is expressed at low level in normal cells and at a high level in a variety of transformed cell lines, where it's believed to contribute to transformation and malignancy. p53 is a DNA-binding protein containing transcription activation, DNA-binding, and oligomerization domains. It is postulated to bind to a p53-binding site and activate expression of downstream genes that inhibit growth and/or invasion, and thus function as a tumor suppressor. Mutants of p53 that frequently occur in a number of different human cancers fail to bind the consensus DNA binding site, and hence cause the loss of tumor suppressor activity. Alterations of this gene occur not only as somatic mutations in human malignancies, but also as germline mutations in some cancer-prone families with Li-Fraumeni syndrome



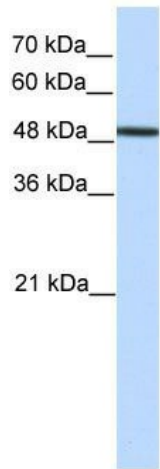
[View online »](#)

Synonyms: BCC7; LFS1; P53; TRP53

Protein Families: Druggable Genome, Stem cell - Pluripotency, Transcription Factors

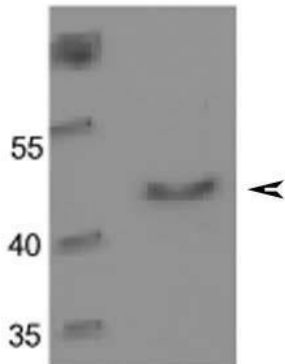
Protein Pathways: Amyotrophic lateral sclerosis (ALS), Apoptosis, Basal cell carcinoma, Bladder cancer, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, Glioma, Huntington's disease, MAPK signaling pathway, Melanoma, Neurotrophin signaling pathway, Non-small cell lung cancer, p53 signaling pathway, Pancreatic cancer, Pathways in cancer, Prostate cancer, Small cell lung cancer, Thyroid cancer, Wnt signaling pathway

Product images:



TP53 Antibody validated by WB using human DU145 cells at 1:2,000.

TP53



DU145 cells were lysed in IP lysis buffer: 20 mM HEPES, 1% Triton X-100, 150 mM NaCl, 1mM EDTA, 1 mM EGTA, 100 mM NaF, 10 mM Na4P2O7, 1 mM Na3VO4, 0.2 mM PMSF. Amount of Protein per well: 30 ug. Primary antibody conditions: 1:2000 in 5% milk/TBST buffer, overnight at 4°C. Secondary antibody conditions: 1 to 5000 in 5% milk/TBST buffer, 1 hour at room temperature. TP53 is strongly supported by BioGPS gene expression data to be expressed in Human DU145 cells

See Immunoblot 2 Data and Customer Feedback tab for more information.

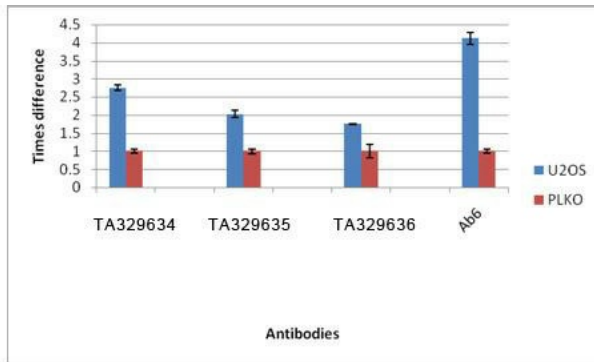


Figure 2. Binding of p53-specific antibodies to the p21 promoter.

Application: ChIP Assay
 Application data in forum

Submitted by:
 Nick Barlev
 Department of Biochemistry
 University of Leicester

Figure 1. Binding of p53-specific antibodies to the p21 promoter. U2OS (p53+) cells were treated with 0.5 uM Doxorubicin for 14 hrs to induce DNA damage and hence activate p53. In parallel, PLKO cells (U2OS cells with stable shRNA-mediated knockdown of p53) were treated similarly and were used as negative control. The data for p21 promoter were normalised to actin (control for non-specific binding of DNA to the antibodies).