OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA329142

p53 (TP53) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	ELISA, WB, CHIP
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The immunogen for anti-TP53 antibody: synthetic peptide directed towards the N terminal of human TP53. Synthetic peptide located within the following region: PSQAMDDLMLSPDDIEQWFTEDPGPDEAPRMPEAAPPVAPAPAAPTPAAP
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:	44 kDa
Gene Name:	tumor protein p53
Database Link:	NP_000537 Entrez Gene 7157 Human P04637

View online »

Background: TP53 acts as a tumor suppressor in many tumor types; induces growth arrest or apoptosis depending on the physiological circumstances and cell type. Involved in cell cycle regulation as a trans-activator that acts to negatively regulate cell division by controlling a set of genes required for this process. This gene encodes tumor protein p53, which 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. Multiple p53 variants due to alternative promoters and multiple alternative splicing have been found. These variants encode distinct isoforms, which can regulate p53 transcriptional activity.

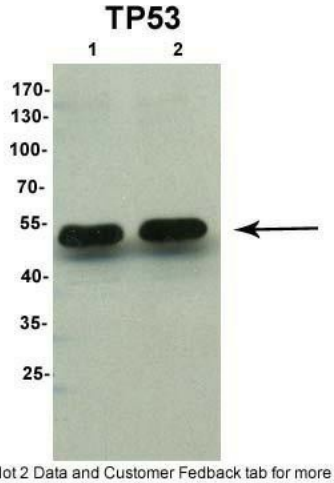
Synonyms: BCC7; LFS1; P53; TRP53

Note: Immunogen sequence homology: Human: 100%

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

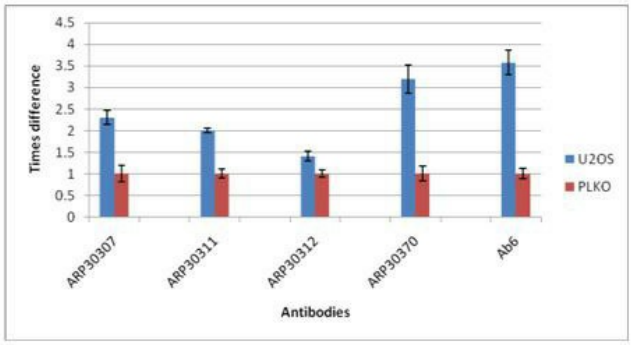
Product images:



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

Sample Type :human cystic fibrosis bronchial epithelial cells; P53: 1/1 000Goat anti-rabbit-HRP: 1:5000

WB Suggested Anti-TP53 Antibody Titration: 0.2-1 ug/ml; ELISA Titer: 1:62500; Positive Control: 293T cell lysateTP53 is strongly supported by BioGPS gene expression data to be expressed in Human HEK293T cells



U20S (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. Thedata for p21 promoter were normalised to actin (control for non-specific binding of DNA to the antibodies).

Figure 1. 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