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Product datasheet for TA347308

p53 (TP53) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	ChIP/ChIP-seq (1 µg/ChIP); ELISA (1:4,000); Western blot (1:2,000)
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The immunogen for anti-p53 antibody: human p53 (tumor protein p53), using a KLH-conjugated synthetic peptide containing a sequence from the C-terminal part of the protein.
Concentration:	lot specific
Purification:	Affinity purified polyclonal antibody in PBS containing 0.05% azide and 0.05% ProClin 300.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	tumor protein p53
Database Link:	NP_000537 Entrez Gene 7157 Human P04637
Background:	The transcription factor p53 (UniProt/Swiss-Prot entry P04637) is a tumour suppressor that regulates the cellular response to diverse cellular stresses. Upon activation, p53 induces several target genes which leads to cell cycle arrest and DNA repair, or alternatively, to apoptosis. In unstressed cells, p53 is kept inactive by the ubiquitin ligase MDM2 which inhibits the activity and promotes the degradation. Mutations in p53 are involved in a vast majority of human cancers.
Synonyms:	BCC7; LFS1; P53; TRP53
Protein Families:	Druggable Genome, Stem cell - Pluripotency, Transcription Factors

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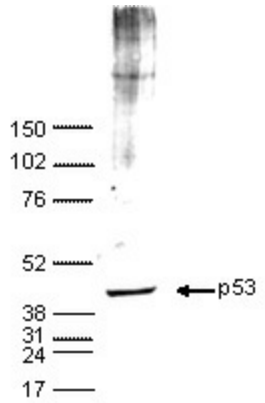
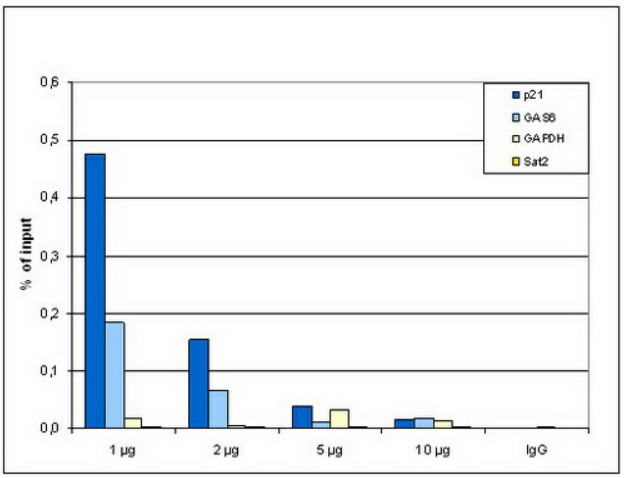
Protein Pathways: Amyotrophic lateral sclerosis (ALS), Apoptosis, Basal cell carcinoma, Bladder cancer, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, Glioma, Huntington's disease, MAPK signaling pathway, Melanoma, Neurotrophin signaling pathway, Non-small cell lung cancer,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

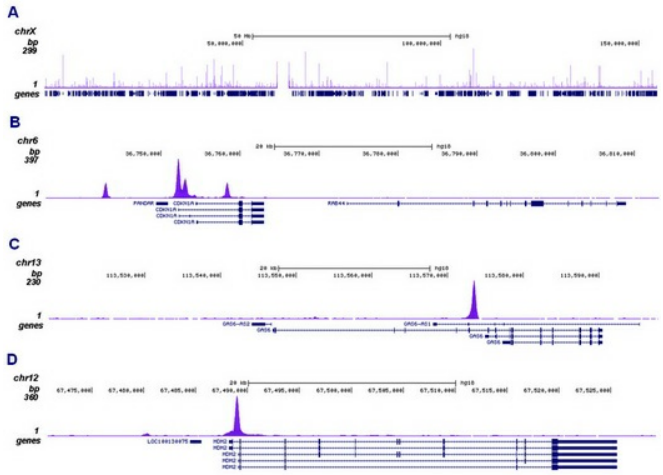
Product images:



WB using the antibody against p53 diluted 1:2,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right; the marker (in kDa) is shown on the left.



ChIP assays were performed using human U2OS cells, treated with camptothecin, the ab against p53 and optimized PCR primer sets for QPCR. ChIP experiment was analysed. IgG (2 ug/IP) was used as negative IP control. QPCR was performed with primers for the p21 and GAS6 genes used as positive controls, and for GAPDH gene and the Sat2 satellite repeatas negative controls. Image shows the recovery, expressed as a % of input (the relative amount of IP'd DNA compared to input DNA after qPCR analysis).



ChIP was performed on sheared chromatin from 4 million U2OS cells using 1 ug of the ab against p53 as described above. The IP'd DNA was subsequently analysed on an Illumina HiSeq. The 51 bp tags were aligned to the human genome using the BWA algorithm. Image shows the peak distribution along the X-chromosome (fig 2A) and in 3 genomic regions of chromosome 6, 13 and 12, surrounding p21 (CDKN1A), GAS6 and MDM2, 3 known targets genes of p53 (fig 2B, C and D, respectively).