

Anti-p53 TP53 Antibody

Catalog Number: CI1060

About TP53

The transcription factor p53 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.

Overview

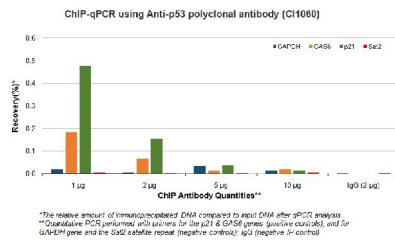
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|----------------------|---|
| Product Name | Anti-p53 TP53 Antibody |
| Reactive Species | Human |
| Description | Boster Bio Anti-p53 TP53 Antibody (Catalog# CI1060). Tested in ChIP, ChIP-seq, ELISA, WB applications. This antibody reacts with Human. |
| Application | ChIP, ChIP-seq, ELISA, WB |
| Clonality | Polyclonal |
| Formulation | Affinity purified polyclonal antibody in PBS containing 0.05% azide and 0.05% ProClin 300. |
| Storage Instructions | Store at -20°C. For long-term storage, store at -80°C. Avoid multiple freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | P04637 |

Technical Details

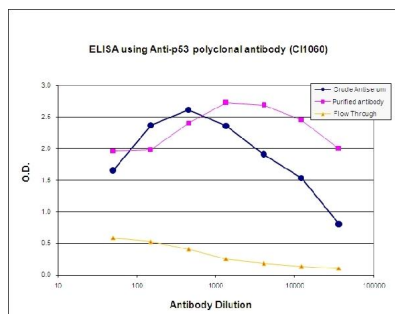
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|-------------------------------|---|
| Immunogen | This antibody is raised in rabbit against human p53 (tumor protein p53), using a KLH-conjugated synthetic peptide containing a sequence from the C-terminal part of the protein. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot. Boster recommends high sensitivity ChIP-seq Kit (CK1001 & CK1002) for Chromatin Immunoprecipitation. |
| Form | Liquid |
| Concentration | 0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure. |
| Purification | Affinity purified |
| Suggested Dilutions | Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. |

Some PubMed article(s) citing the expression level of this target are as follows:
Boster Bio's internal QC testing used:
User needs to optimize the dilution ratio for this antibody.

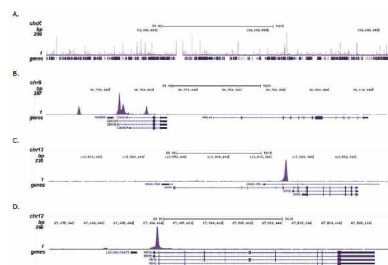
Anti-p53 TP53 Antibody (CI1060) Images



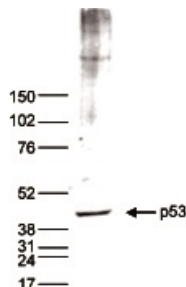
ChIP assays were performed using human U2OS cells, treated with camptothecin, Anti-p53 polyclonal antibody (Catalog # CI1060) and optimized PCR primer sets for QPCR. ChIP was performed on sheared chromatin from 4 million cells. A titration of the antibody consisting of 1, 2, 5, and 10 µg per ChIP experiment was analysed. IgG (2 µg/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 repeat, used as negative controls.



To determine the titer of the antibody, an ELISA was performed using a serial dilution of Anti-p53 polyclonal antibody (Catalog # CI1060), crude serum and flow through in antigen coated wells. By plotting the absorbance against the antibody dilution, the titer of the antibody was estimated to be 1:308,000.



ChIP was performed on sheared chromatin from 4 million U2OS cells using 1 µg of Anti-p53 polyclonal antibody (Catalog # CI1060). The IP DNA was subsequently analysed on an Illumina HiSeq. Library preparation, cluster generation and sequencing were performed according to the manufacturer instructions. The 51 bp tags were aligned to the human genome using the BWA algorithm. Figure 2 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).



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