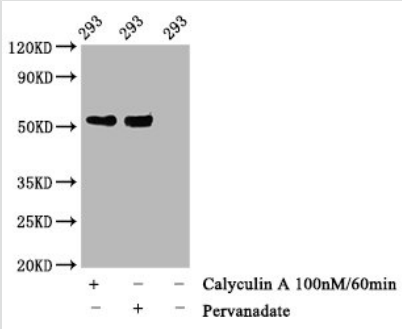
Phospho-TP53 (T55) Antibody

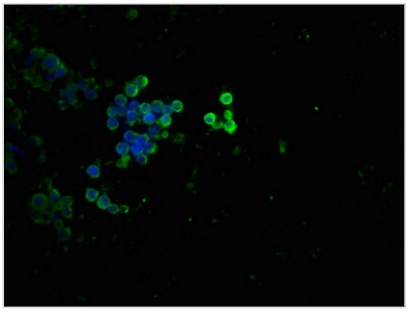
Product Code	CSB-RA024077A55phHU
Abbreviation	Cellular tumor antigen p53
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P04637
Immunogen	A synthesized peptide derived from Human Phospho-TP53 (T55)
Species Reactivity	Human
Tested Applications	ELISA, WB, IF; Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200
Relevance	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. One of the activated genes is an inhibitor of cyclin-dependent kinases. Apoptosis induction seems to be mediated either by stimulation of BAX and FAS antigen expression, or by repression of Bcl-2 expression. In cooperation with mitochondrial PPIF is involved in activating oxidative stress-induced necrosis; the function is largely independent of transcription. Induces the transcription of long intergenic non-coding RNA p21 (lincRNA-p21) and lincRNA-Mkln1. LincRNA-p21 participates in TP53-dependent transcriptional repression leading to apoptosis and seem to have to effect on cell-cycle regulation. Implicated in Notch signaling cross-over. Prevents CDK7 kinase activity when associated to CAK complex in response to DNA damage, thus stopping cell cycle progression. Isoform 2 enhances the transactivation activity of isoform 1 from some but not all TP53-inducible promoters. Isoform 4 suppresses transactivation activity and impairs growth suppression mediated by isoform 1. Isoform 7 inhibits isoform 1-mediated apoptosis. Regulates the circadian clock by repressing CLOCK-ARNTL/BMAL1-mediated transcriptional activation of PER2 (PubMed:24051492).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	Cellular tumor antigen p53, Antigen NY-CO-13, Phosphoprotein p53, Tumor suppressor p53, TP53, P53
Immunogen Species	Homo sapiens (Human)
Research Area	Cell Biology
Gene Names	TP53

Accession NO. 3C3

Image



Western Blot
Positive WB detected in 293 whole cell lysate(treated with Calyculin A or Pervanadate)
All lanes Phospho-TP53 antibody at 1.28μg/ml
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 53 KDa
Observed band size: 53 KDa



Immunofluorescence staining of 293 cells(treated with 50mM Calyculin A for 30min) with CSB-RA024077A55phHU at 1:100,counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

The phospho-TP53 (T55) monoclonal antibody's DNA sequence was inserted into the plasmid, which was subsequently transfected into the cell line for expression. The phospho-TP53 (T55) recombinant monoclonal antibody was produced after purification using affinity chromatography. This rabbit IgG phospho-TP53 (T55) recombinant antibody has been evaluated in scientific applications such as ELISA, WB, and IF. The T55 phospho-specific antibody exclusively reacts with phosphorylated human TP53 at Thr 55.

The tumor suppressor P53 is a transcriptional factor involved in the modulation of cell growth, cell cycle, apoptosis, and senescence. TP53 is tightly regulated by posttranslational modifications. Phosphorylation of TP53 plays an important role in the cellular response to various stresses. Phosphorylation of multiple sites in the inherently disordered N-terminal transactivation domain activates TP53 after DNA damage. During various stages of the cellular DNA damage response, the phosphorylation status of Thr55 regulates both the activation and termination of p53-mediated transcriptional programs.