

Active Recombinant Human Tumor Protein P53, GST-tagged

Cat. No. TP53-1077H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source E.coli

Description

p53 was identified as a tumor suppressor by showing that this protein has the ability to block transformation and to inhibit tumor cell growth. In addition, p53 is a transcription factor capable of regulating the expression of a subset of downstream genes. Mutation of two specific N-terminal residues in p53 (residues Leu22 and Trp23) impairs the ability of p53 to transactivate and has been correlated with its ability to bind TAFII40 and TAFII60 (or TAFII31 and TAFII70) suggesting that one or both of these interactions is important for activation. Mutation of residues 22 and 23 to Ala does not affect binding to TBP, although mutation of these residues to charged amino acids has been reported to disrupt the p53-TBP interaction. Different mutations in p53 gene have been characterized in a variety of human cancers. Loss or mutation of p53 function is highly correlated with tumorigenesis. GST-p53 is isolated from a strain of *E. coli* that contains the coding sequence of wild type human p53 (amino acids 1-81) under the control of T7 promoter. The fusion protein is immunoreactive with the human p53 specific monoclonal antibody.

Form Liquid. Supplied in 20mM Tris-HCl pH8.0, 20% glycerol, 100mM KCl, 0.2mM EDTA and 1mM DTT.

Activity 1ng are sufficient for a protein-protein interaction assay.

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Application	GST-p53 can be used for protein-protein interaction assay.
Purity	>95% by SDS-PAGE.
Usage	For in vitro use only.
Storage	Quality guaranteed for 12 months. Store at -80°C. Avoid freeze / thaw cycles.

GENE INFORMATION

Gene Name	TP53 tumor protein p53 [Homo sapiens]
Synonyms	TP53; tumor protein p53; p53; LFS1; TRP53; FLJ92943; Antigen NY-CO-13; Phosphoprotein p53; Tumor suppressor p53; p53 transformation suppressor; p53 tumor suppressor; transformation-related protein 53
Gene ID	7157
mRNA Refseq	NM_000546
Protein Refseq	NP_000537
MIM	191170
UniProt ID	P04637
Chromosome Location	17p13.1
Pathway	Amyotrophic lateral sclerosis (ALS); Apoptosis; Basal cell carcinoma; Bladder cancer; Cell cycle; Chronic myeloid leukemia; Colorectal cancer; Endometrial cancer; Glioma;

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Huntington's disease; MAPK signaling pathway; Melanoma; Neurotrophin signaling pathway; Non-small cell lung cancer; Pancreatic cancer; Pathways in cancer; Prostate cancer; Small cell lung cancer; Thyroid cancer; Wnt signaling pathway; p53 signaling pathway; Cell Cycle Checkpoints

Function

ATP binding; DNA strand annealing activity; chaperone binding; chromatin binding; copper ion binding; enzyme binding; metal ion binding; promoter binding; protein N-terminus binding; protein heterodimerization activity; transcription factor activity; transcription factor binding; zinc ion binding

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