Recombinant Human TP53, His-tagged

Cat. No. TP53-30570TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 1-363 of Human p53 with His tag expressed in a baculovirus system, 41kDa.
Species	Human
ProteinLength	1-363 a.a.
Description	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 its 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.
Conjugation	HIS

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Tissue specificity	Ubiquitous. Isoforms are expressed in a wide range of normal tissues but in a tissue-dependent manner. Isoform 2 is expressed in most normal tissues but is not detected in brain, lung, prostate, muscle, fetal brain, spinal cord and fetal liver. Isoform 3
Form	Liquid
Purity	>95% by SDS-PAGE
Storage buffer	Preservative: NoneConstituents: 20% Glycerol, 20mM Tris Cl, 100mM Potassium chloride, 1mM DTT, 0.2mM EDTA, pH 8.0
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the p53 family.

GENE INFORMATION

Gene Name	TP53 tumor protein p53 [Homo sapiens]
Official Symbol	TP53
Synonyms	TP53; tumor protein p53; cellular tumor antigen p53; LFS1; Li Fraumeni syndrome; p53;
Gene ID	7157
mRNA Refseq	NM_000546
Protein Refseq	NP_000537

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MIM	191170
Uniprot ID	P04637
Chromosome Location	17p13.1
Pathway	Activation of BH3-only proteins, organism-specific biosystem; Activation of NOXA and translocation to mitochondria, organism-specific biosystem; Activation of PUMA and translocation to mitochondria, organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem;
Function	ATP binding; DNA binding; DNA strand annealing activity; MDM2 binding; RNA polymerase II transcription factor binding;

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