

## Recombinant Human TP53, His-tagged

**Cat. No.** TP53-26H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Product Overview</b> | Human P53 produced in E. coli is non-glycosylated polypeptide chain containing 373 amino acids (35-427 a.a; predicted MW=47.22kDa.). The recombinant protein was purified by Ni-NTA affinity column and gel filtration chromatography.                                                                                                                                                                                                  |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ProteinLength</b>    | 35-427 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | p53 (also known as protein 53 or tumor protein 53), is a tumor suppressor protein that in humans is encoded by the TP53 gene. p53 is crucial in multicellular organisms, where it regulates the cell cycle and, thus, functions as a tumor suppressor that is involved in preventing cancer. As such, p53 has been described as "the guardian of the genome" because of its role in conserving stability by preventing genome mutation. |
| <b>Form</b>             | Lyophilized from a 0.22µm filtered solution at a concentration of 1mg/ml in 30 mM sodium diphosphate pH7.5, 300mM KCl, 5mM beta-ME, 3% glycerol.                                                                                                                                                                                                                                                                                        |
| <b>AA Sequence</b>      | MGSSHHHHHHSSGLVPRGSHMASMTGGQQMGRGSMEEPQSDPSVEPPLSQETF<br>SDLWKLLPENNVLSPLPSQAMD DLMLSPDDIEQWFTEDPGPDEAPRMPEAAPRVA<br>PAPAAPTPAAPAPAPSWPLSSSVPSQKTYQGSYGFRLGFLH SGTAKSVTCTYSPAL<br>NKMFCQLAKTCPVQLWVDSTPPPGTRVRAMAIYKQSQHMTEVVRRCPHHERCSDS<br>DGLAP PQHLIRVEGNLRVEYLDDRNTFRHSVVVPYEPPEVGSDCTTIHYNMNCSS                                                                                                                                   |

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CMGGMNRRPILTIITLEDSSGNL LGRNSFEVHVCACPGDRDRTEEEENLRKKKGEPHH  
ELPPGSTKRALSNNNTSSSPQPKKKPLDGEYFTLQIRGRERF EMFRELNEALELKDA  
QAGKEPGGSRAHSSHLKSKKGQSTSRHKKLMFKTEGPDS

**Purity**

Purity is greater than 95% by SDS-PAGE and Coomassie blue staining

**Storage**

Upon reconstitution, the preparation is stable for up to 1 month at 2-8°C. For long term storage, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water to a concentration of 1.0 mg/ml.

## 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; antigen NY-CO-13; mutant p53 protein; phosphoprotein p53; p53 tumor suppressor; truncated p53 protein; tumor suppressor TP53; transformation-related protein 53; P53; TRP53; FLJ92943;

**Gene ID**

7157

**mRNA Refseq**

NM\_000546

**Protein Refseq**

NP\_000537

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| <b>MIM</b>                 | 191170                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>UniProt ID</b>          | P04637                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Chromosome Location</b> | 17p13.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Pathway</b>             | 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; Androgen Receptor Signaling Pathway, organism-specific biosystem; Apoptosis, organism-specific biosystem;                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Function</b>            | ATP binding; DNA binding; DNA strand annealing activity; MDM2 binding; RNA polymerase II core promoter proximal region sequence-specific DNA binding transcription factor activity involved in positive regulation of transcription; RNA polymerase II transcription factor binding; chaperone binding; chromatin binding; copper ion binding; damaged DNA binding; enzyme binding; histone acetyltransferase binding; histone deacetylase regulator activity; identical protein binding; metal ion binding; p53 binding; protease binding; protein N-terminus binding; protein binding; protein heterodimerization activity; protein kinase binding; protein phosphatase 2A binding; sequence-specific DNA binding transcription factor activity; transcription factor binding; transcription regulatory region DNA binding; ubiquitin protein ligase binding; zinc ion binding; |