Active Recombinant Full Length Human TP53 Protein, C-Flag-tagged

Cat. No. TP53-06HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human TP53 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	This gene encodes a tumor suppressor protein containing transcriptional activation, DNA binding, and oligomerization domains. The encoded protein responds to diverse cellular stresses to regulate expression of target genes, thereby inducing cell cycle arrest, apoptosis, senescence, DNA repair, or changes in metabolism. Mutations in this gene are associated with a variety of human cancers, including hereditary cancers such as Li-Fraumeni syndrome. Alternative splicing of this gene and the use of alternate promoters result in multiple transcript variants and isoforms. Additional isoforms have also been shown to result from the use of alternate translation initiation codons from identical transcript variants.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	TP53 Activity Verified in a DNA-binding Assay: TP53 activity was measured in a colorimetric DNA-binding assay. Double-stranded oligonucleotide containing the p53 consensus DNA-binding sequence was incubated with dilutions of the purified TP53 protein and TP53 bound to the oligo was captured onto the surface of a microtiter

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	plate. After washing, bound TP53 was detected with an anti-p53 primary antibody followed by an HRP-labeled secondary antibody. After initial color development, the reaction was quenched and the color intensity was measured at 450nm. EMSA reaction Pull-down assay
Molecular Mass	43.5 kDa
AA Sequence	MEEPQSDPSVEPPLSQETFSDLWKLLPENNVLSPLPSQAMDDLMLSPDDIEQWFTE DPGPDEAPRMPEA APPVAPAPAAPTPAAPAPAPSWPLSSSVPSQKTYQGSYGFRL GFLHSGTAKSVTCTYSPALNKMFCQLA KTCPVQLWVDSTPPPGTRVRAMAIYKQS QHMTEVVRRCPHHERCSDSDGLAPPQHLIRVEGNLRVEYLD DRNTFRHSVVVPYE PPEVGSDCTTIHYNYMCNSSCMGGMNRRPILTIITLEDSSGNLLGRNSFEVRVCA CP GRDRRTEEENLRKKGEPHHELPPGSTKRALPNNTSSSPQPKKKPLDGEYFTLQIRG RERFEMFRELN EALELKDAQAGKEPGGSRAHSSHLKSKKGQSTSRHKKLMFKTEGPDSDTRTRPLE QKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

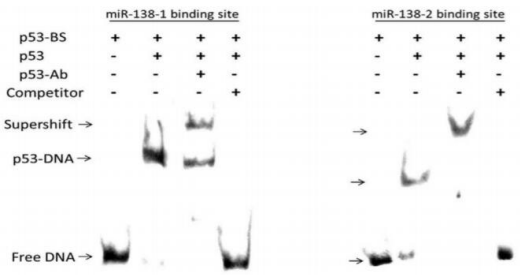
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Protein Families	Druggable Genome, Stem cell - Pluripotency, Transcription Factors
Protein Pathways	Amyotrophic lateral sclerosis (ALS), Apoptosis, Basal cell carcinoma, Bladder cancer, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, Glioma, Huntington's disease, MAPK signaling pathway, Melanoma, Neurotrophin signaling pathway, Non-small cell lung cancer, p53 signaling pathway, Pancreatic cancer, Pathways in cancer, Prostate cancer, Small cell lung cancer, Thyroid cancer, Wnt signaling pathway
Full Length	Full L.

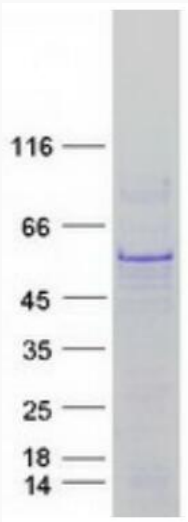
GENE INFORMATION

Gene Name	TP53 tumor protein p53 [Homo sapiens (human)]
Official Symbol	TP53
Synonyms	BCC7; BMFS5; LFS1; P53; TRP53
Gene ID	7157
mRNA Refseq	NM_000546.6
Protein Refseq	NP_000537.3
MIM	191170
UniProt ID	P04637

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P53 binds to the predicted binding site (BS) for miR-138 in vitro. Electrophoretic mobility shift assay (EMSA) was performed with 100 ng p53 protein and biotin-labeled oligonucleotides. The p53 antibody and unlabeled competitor probe were added as indicated.



Coomassie blue staining of purified TP53 protein.

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