

Product datasheet for **TP300003**

p53 (TP53) (NM_000546) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human tumor protein p53 (TP53), transcript variant 1, 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>Peptide sequence encoded by RC200003 Blue=ORF Red=Cloning site Green=Tag(s)

MEEPQSDPSVEPPLSQETFSDLWKLLPENNVLSPGPSQAMDDLMLSPDDIEQWFTEDPGPDEAPRMPEA
APPVAPAAPAPTPAAPAPAPSWPLSSSVPSQKTYQGSYGFRLGFLHSGTAKSVTCTYSPALNKMFCQLA
KTCVPQLWVDSTPPPGTRVRAMAIYKQSQMHMTEVVRCPHHERCSDSDGLAPPQHILRVEGNLRVEYLD
DRNTRHRSVWPYEPPEVGSDCTTIHNYMCNSSCMGGMNRRPILTIITLEDSSGNLLGRNSFEVRVCA
CPGRDRRTEENLRKKGEPHHELPPGSTKRALPNNTSSSPQPKKKPLDGEYFTLQIRGRERFEMFRELN
EAELEKDAQAGKEPGGSRAHSSHLKSKKGQSTSRHKKLMFKTEGPDSD
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Recombinant protein using RC200003 also available, [TP300003](#)

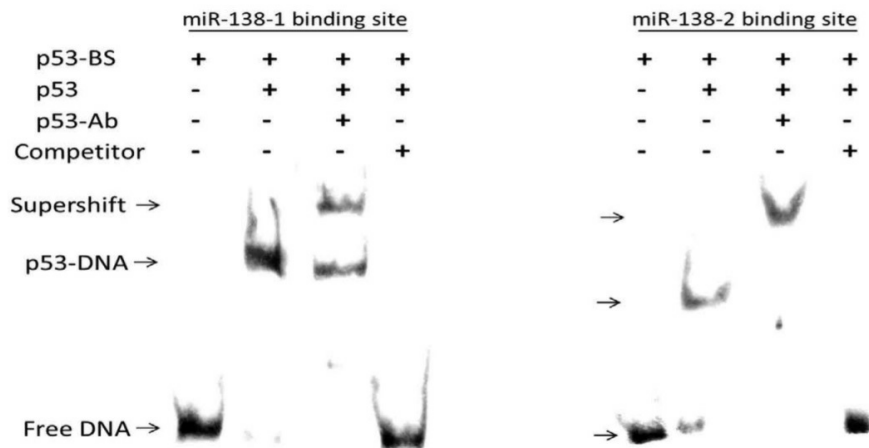
Tag:	C-Myc/DDK
Predicted MW:	43.5 kDa
Concentration:	>0.1 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Bioactivity:	TP53 Activity Verified in a DNA-binding Assay: TP53 (TP304649) 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 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 (PMID: 27183959) Pull-down assay (PMID: 27515399)



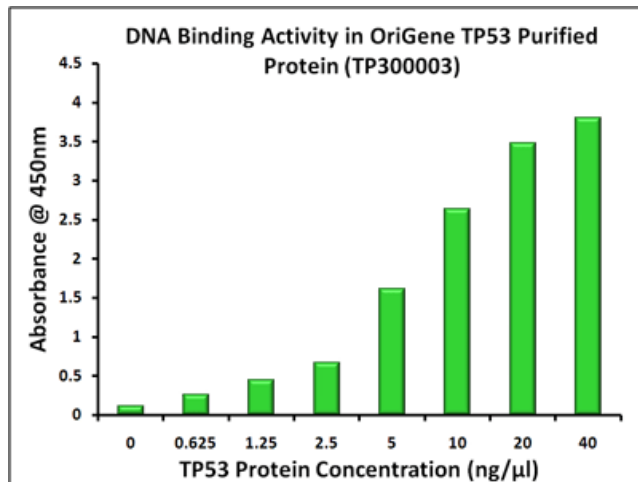
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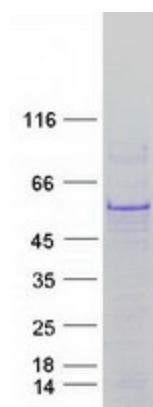
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<u>NP_000537</u>
Locus ID:	7157
UniProt ID:	<u>P04637</u>
RefSeq Size:	2591
Cytogenetics:	17p13.1
RefSeq ORF:	1179
Synonyms:	BCC7; BMFS5; LFS1; P53; TRP53
Summary:	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 (PMIDs: 12032546, 20937277). [provided by RefSeq, Dec 2016]
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

Product images:



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 (OriGene TP300003) and biotin-labeled oligonucleotides. The p53 antibody and unlabeled competitor probe were added as indicated. Figure cited from Sci Rep, PMID: 27183959





Coomassie blue staining of purified TP53 protein (Cat# TP300003). The protein was produced from HEK293T cells transfected with TP53 cDNA clone (Cat# [RC200003]) using MegaTran 2.0 (Cat# [TT210002]).