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# Product datasheet for RC400014

## p53 (TP53) (NM_000546) Human Mutant ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Mutant ORF Clones |
| **Product Name:** | p53 (TP53) (NM_000546) Human Mutant ORF Clone |
| **Mutation Description:** | N286-D1 |
| **Affected Codon#:** | 96 |
| **Affected NT#:** | c.286 |
| **Nucleotide Mutation:** | TP53 mutant (N286-D1), Myc-DDK-tagged ORF clone of Homo sapiens tumor protein p53 (TP53), transcript variant 1 as transfection-ready DNA |
| **Effect:** | Frame Shift |
| **Symbol:** | p53 |
| **Synonyms:** | BCC7; BMFS5; LFS1; P53; TRP53 |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-AC-Myc-DDK (PS100007) |
| **Tag:** | Myc-DDK |
| **ACCN:** | NM_000546 |
| **ORF Size:** | 366 bp |
| **Restriction Sites:** | SgfI-MluI |

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**ORF Nucleotide Sequence:**

>RC400014 representing NM_000546
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGGAGCCGCAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGGAAACATTTTCAGACCTATGGA
AACTACTTCCTGAAAACAACGTTCTGTCCCCCTTGCCGTCCCAAGCAATGGATGATTTGATGCTGTCCCC
GGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCAGATGAAGCTCCCAGAATGCCAGAGGCTGCT
CCCCCCGTGGCCCCTGCACCAGCAGCTCCTACACCGGCGGCCCCTGCACCAGCCCCCTCCTGGCCCCTGT
CATCTCTGTCCCTTCCCAGAAAACCTACCAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGCATTCTGGG
ACAGCCAAGTCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC400014 representing NM_000546
Red=Cloning site Green=Tags(s)

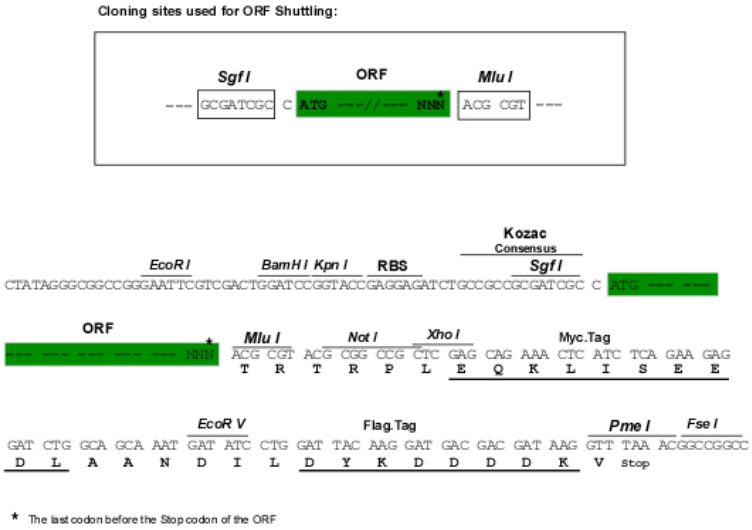
MEEPQSDPSVEPPLSQETFSDLWKLLPENNVLSPLPSQAMDDLMLSPDDIEQWFTEDPGPDEAPRMPEAA
PPVAPAPAAPTPAAPAPAPSWPLSSLSLPRKPTRAATVSVWASCILGQPSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** /chromatograms/ja1129_c02.zip

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

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|---|---|
| **OTI Disclaimer:** | Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.<br><br>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info |
| **OTI Annotation:** | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene. |
| **Components:** | The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water). |
| **Note:** | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required. |
| **RefSeq:** | NP_000537 |
| **RefSeq Size:** | 2629 bp |
| **RefSeq ORF:** | 1182 bp |
| **Locus ID:** | 7157 |
| **Cytogenetics:** | 17p13.1 |
| **Domains:** | P53 |
| **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 |
| **MW:** | 12.9 kDa |

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**Gene 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]

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