

## Product datasheet for **RG225238**

### p53 (TP53) (NM\_001126116) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** p53 (TP53) (NM\_001126116) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** TP53  
**Synonyms:** BCC7; BMFS5; LFS1; P53; TRP53  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG225238 representing NM\_001126116  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTTTTGCCAACTGGCCAAGACCTGCCCTGTGCAGCTGTGGTTGATTCCACACCCCGCCGGCACCC  
 GCGTCCGCGCCATGGCCATCTACAAGCAGTCACAGCACATGACGGAGGTTGTGAGGCGCTGCCCCACCA  
 TGAGCGCTGCTCAGATAGCGATGGTCTGGCCCTCCTCAGCATCTATCCGAGTGAAGGAAATTTGCGT  
 GTGGAGTATTTGGATGACAGAAACTTTTCGACATAGTGTGGTGGTGCCTATGAGCCGCTGAGGTTG  
 GCTCTGACTGTACCACCATCCACTACAACACTACATGTGTAACAGTTCCTGCATGGGCGGCATGAACGGAG  
 GCCCATCCTCACCATCATCACACTGGAAGACTCCAGTGGTAATCTACTGGGACGGAACAGCTTTGAGGTG  
 CGTGTGTTGTCCTGTCCTGGGAGAGACCGCGCACAGAGGAAGAGAATCTCCGCAAGAAAGGGGAGCCTC  
 ACCACGAGCTGCCCCAGGGAGCACTAAGCGAGCACTGCCCAACAACACCAGCTCCTCTCCCAGCCAAA  
 GAAGAAACCACTGGATGGAGAATATTTACCCTTCAGGACCAGACCAGCTTTCAAAAAGAAAATTGT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG225238 representing NM\_001126116  
 Red=Cloning site Green=Tags(s)

MFCQLAKTCPVQLWVDSTPPPGTRVRAMAIYKQSQHMTEVVRRCPPHERCSDSDGLAPPQHLIRVEGNLR  
 VEYLDDRNTFRHSVVVPYEPPEVGSDCSTTIHYNMCMSSCMGMNRRPILTIITLEDSSGNLLGRNSFEV  
 RVCACPGRRRTEENLRKKGEPHHELPPGSTKRALPNNTSSSPQPKKPLDGEYFTLQDQTSFQKENC

**TRTRPLE** - GFP Tag - V

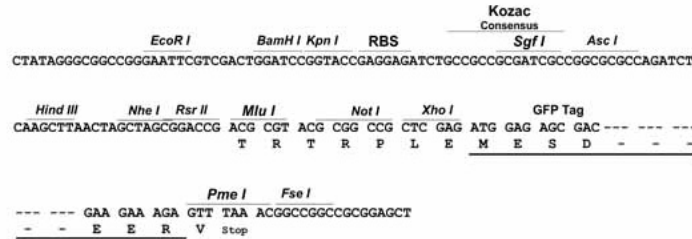
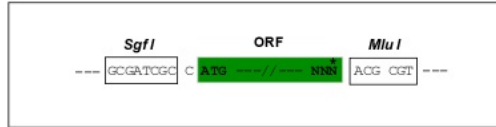
**Restriction Sites:** Sgfl-MluI



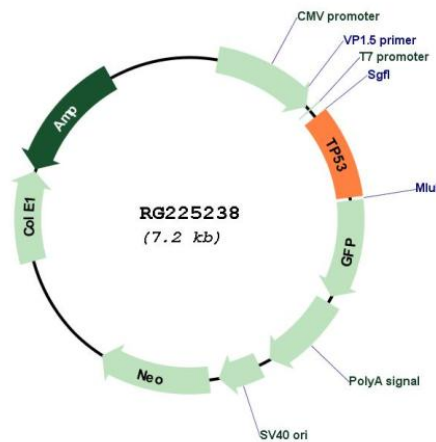
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Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:                      NM\_001126116  
 ORF Size:                627 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001126116.1</a> , <a href="#">NP_001119588.1</a>
<b>RefSeq Size:</b>	2404 bp
<b>RefSeq ORF:</b>	630 bp
<b>Locus ID:</b>	7157
<b>UniProt ID:</b>	<a href="#">P04637</a>
<b>Cytogenetics:</b>	17p13.1
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency, Transcription Factors
<b>Protein Pathways:</b>	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

**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]