

## Product datasheet for SC323020

### p53 (TP53) (NM\_001126112) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	p53 (TP53) (NM_001126112) Human Untagged Clone
Tag:	Tag Free
Symbol:	p53
Synonyms:	BCC7; BMFS5; LFS1; P53; TRP53
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF sequence for NM_000546 edited

ATGGAGGAGCCGAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGGAAACATTTTCA  
 GACCTATGGAACTACTTCTGAAAACAACGTTCTGTCCCTTGCCGTCCCAAGCAATG  
 GATGATTTGATGCTGTCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCA  
 GATGAAGCTCCCAGAATGCCAGAGGCTGCTCCCGCGTGGCCCCGTGACCAAGCAGCTCCT  
 ACACCGGCGGCCCTGACCAAGCCCCCTCTGGCCCCGTGATCTTCTGTCCCTTCCAG  
 AAAACCTACCAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGCAATTCTGGGACAGCCAAG  
 TCTGTGACTTGACGTAATCCCCTGCCCTCAACAAGATGTTTGGCAACTGGCCAAGACC  
 TGCCCTGTGAGCTGTGGGTTGATTCCACACCCCGCCCGGACCCGCGTCCGCGCCATG  
 GCCATCTACAAGCAGTCACAGCACATGACGGAGGTTGTGAGGCGCTGCCCCACCATGAG  
 CGCTGCTCAGATAGCGATGGTCTGGCCCCCTCTCAGCATCTTATCCGAGTGGAAGGAAAT  
 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGTGCCTAT  
 GAGCCGCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACATACATGTGTAAACAGT  
 TCCTGCATGGGCGGCATGAACCGGAGGCCATCCTCACCATCATCACTGGAAGACTCC  
 AGTGGTAATCTACTGGGACGGAACAGCTTTGAGGTGCGTGTGTCCTGTCTGGGAGA  
 GACCGGCGCACAGAGGAAGAGAAATCTCCGAAGAAAGGGAGCCTCACCACGAGCTGCC  
 CCAGGGAGCACTAAGCGAGCACTGCCCAACAACACCAGCTCCTCTCCCAGCCAAAGAAG  
 AAACCACTGGATGGAGAATATTTCAACCTTCAGATCCGTGGGCGTGAGCGCTTCGAGATG  
 TTCCGAGAGCTGAATGAGGCCTTGGAACCTCAAGGATGCCAGGCTGGGAAGGAGCCAGGG  
 GGGAGCAGGGCTCACTCCAGCCACCTGAAGTCCAAAAAGGGTCAGTCTACCTCCCGCCAT  
 AAAAAACTCATGTTCAAGACAGAAGGGCTGACTCAGACTGA

Restriction Sites:	Please inquire
ACCN:	NM_001126112
Insert Size:	2500 bp


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<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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001126112.1</a> , <a href="#">NP_001119584.1</a>
<b>RefSeq Size:</b>	2583 bp
<b>RefSeq ORF:</b>	1182 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]

Transcript Variant: This variant (2) uses an alternate splice site in the 5' UTR, compared to variant 1. This variant can initiate translation from two in-frame AUG start codons. The isoform represented in this variant (a, also known as p53alpha) results from translation initiation at the upstream start codon. Both variants 1 and 2 encode isoform a, which is the longest isoform.