

## Product datasheet for **SC119832**

### p53 (TP53) (NM\_000546) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	p53 (TP53) (NM_000546) 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  
 GACCTATGGAACTACTTCTGAAAACAACGTTCTGTCCCCTTGCCGTCCTCAAGCAATG  
 GATGATTTGATGCTGTCCCGGACGATATTGAACAATGGTTCAGTGAAGACCCAGGTCCA  
 GATGAAGCTCCCAGAATGCCAGAGGCTGCTCCCGCGTGGCCCCGTCACACGAGCTCCT  
 ACACCGCGGCCCTGCACACGCCCCCTCTGGCCCCGTGTCATCTTGTCCCTTCCCAG  
 AAAACCTACCAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGCACTTGGGACAGCCAAG  
 TCTGTGACTTGCACGTAATCCCCTGCCCTCAACAAGATGTTTTGCCAACTGGCCAAGACC  
 TGCCCTGTGCAGCTGTGGGTTGATTCCACACCCCGCCCGCACCCGCGTCCGCGCCATG  
 GCCATCTACAAGCAGTCACAGCACATGACGGAGGTTGTGAGGCGCTGCCCCACCATGAG  
 CGCTGCTCAGATAGCGATGGTCTGGCCCCCTCCTCAGCATTTATCCGAGTGAAGGAAAT  
 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGTGCCTAT  
 GAGCCGCCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACATACATGTGTAACAGT  
 TCCTGCATGGGCGGCATGAACCGGAGGCCATCCTCACCATCATCACTGGAAGACTCC  
 AGTGGTAATCTACTGGGACGGAACAGCTTTGAGGTGCGTGTGTTGTGCCTGTCTGGGAGA  
 GACCGGCGCACAGAGGAAGAGAAATCTCCGCAAGAAAGGGGAGCCTCACCAGAGCTGCC  
 CCAGGGAGCACTAAGCGAGCACTGCCAACAACACCAGCTCCTCTCCCCAGCCAAAGAAG  
 AAACCACTGGATGGAGAATATTTACCCCTCAGATCCGTGGGCGTGAGCGCTTCGAGATG  
 TTCCGAGAGCTGAATGAGGCCTTGGAACTCAAGGATGCCAGGCTGGGAAGGAGCCAGGG  
 GGGAGCAGGGCTCACTCCAGCCACCTGAAGTCCAAAAAGGGTCAGTCTACCTCCCCCAT  
 AAAAAACTCATGTTCAAGACAGAAGGGCCTGACTCAGACTGA



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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_000546 unedited            TTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCTTTGCGTTCCGGG            TGGGAGCGTGCTTTCCACGACGGTGACACGCTTCCCTGGATTGGCAGCCAGACTGCCTTC            CGGGCTACTGCCATGGAGGAGCCGAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAG            GAAACATTTTCAGACCTATGGAACTACTTCTGAAAACAACGTTCTGTCCCCCTTGCCG            TCCCAAGCAATGGATGATTTGATGTCTCCCGGACGATATTGAACAATGGTTCAGTAA            GACCCAGGTCAGATGAAGCTCCCAAGATGCCAGAGGCTGCTCCCGCGTGGCCCTGCA            CCAGCAGTCTACACCGCGGCCCTGCACCAGCCCCCTCTGGCCCTGTCATCTTCT            GTCCCTTCCCAGAAAACCTACCAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGCAATTCT            GGGACAGCCAAGTCTGTGACTTGACGTAATCCCTGCCCTCAACAAGATGTTTTGCCAA            CTGGCCAAGACCTGCCCTGTGCAGCTGTGGTTGATTCCACACCCCGCCCGCACCCGC            GTCCGCGCCATGGCCATCTACAAGCAGTCACAGCACATGACGGAGGTTGTGAGGCGCTG            CCCCCACCATGAGCGCTGCTCAGATAGCGATGGTCTGCCCTCCTCAGCATCTTATCCGA            GTGGAAAGAAATTTGGCGTGTGGAGTATTGGATGACAGAAAACACTTTTCCACATATGG            GNGTGGTCGCCCTAAGAGCCCCCTGAGGTTGGGTCTGACTGTCCACCATCCCTTCCAC            TAACTGGGAAACAGTTCTTGCTTGGCCGGATGAACCGGAAGGCCCTCTTACCTCATCA            CACTGGAAGACTCCGGGAATTCACG</p>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_000546 unedited            CCGCGGCCCAATCTAGNATCGAGTTTTTTTTTTTTTTTTTTTTTGGCAGCAAAGTTTTATTG            TAAAATAAGAGATCGATATAAAAATGGGATATAAAAAGGAGAAGGAGGGGAAGGTGGG            GTGAAAATGCAGATGTGCTTGCAGAATGTAAAAGATGTTGACCCTCCAGCTGGACGTGG            TGGCTCACAATTGTAATCCAGCACTCTGGGAGGCTGAGACAGGTGGATCGCCTGAGCCC            AGGAGTTTGAGACCAGCCTGGGCAACACTGTGAGACCCCATCTCTACAAAACATGCAAAA            GTTGGCTGGCCATGGTGGCATGAACCTGTGGTCCCAGCTACTCCGGAGGCTGAGGAGGA            CTGCTCGAGCCGGGGAGGCAAAGGCTGCAGTAAGCCAAGATCACGCCACTCCACTCCAGT            CTGGGCAACTAAGCGAGACCCAGTCTTCAAGTAATTAGACCCCTTTCATTCCACTCCAAA            TCCGATTTGACCCTGAGCCTATAACAAGTCTTCGGTGGATCCCGCACCATCCTATACAA            AAACATGAAATTTCAAGGGTGTGGGATGCGGGTGACAATTTCCCTTTTACGGTTCCAA            CGGTTACCCAACAGGTTGGCCACAATGGTTTGTGCTGGGCCCTCATAACACTTGATAA            CTCCCCTTACTTAACCAGTTCACAAATACGTATATACTCCTCCCACCCTTTCAC            ACCATCGGCTATGGGCACCCCCCTCCGTCAAGGCGCGTCTACTCCTCCCCCACCTCT            CACATAACAGTCTCTACACCCGAGTCTCACTCCTTCTATTTATTTCTCCTCCACCCC            GCTCTCTGCCCGTCTGCTTCCCCATTCTACCCCTCCCCTCCCTCAATTATTACCCTCT            CTCTCACTCTATAACTCCCAAAGTGCCATGCCACACATTTATCTTCTCCCGTTCTACCCG            CCACAGTCACTCTCCGTATAATCGCATTCTAAACATCCGTGCTCACCCCC</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000546
<b>Insert Size:</b>	1182 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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_000546.2</a> , <a href="#">NP_000537.2</a>
<b>RefSeq Size:</b>	2629 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>Domains:</b>	P53
<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
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (1) 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.</p>