

## **Product datasheet for SC322927**

## p53 (TP53) (NM 001126115) Human Untagged Clone

## **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** p53 (TP53) (NM\_001126115) Human Untagged Clone

Tag: Tag Free

Symbol: p53

Synonyms: BCC7; BMFS5; LFS1; P53; TRP53

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Fully Sequenced ORF: >NCBI ORF sequence for NM\_001126115, the custom clone sequence may differ by one or

more nucleotides

GAC

**Restriction Sites:** Please inquire ACCN: NM 001126115

**OTI Disclaimer:** 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).



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## p53 (TP53) (NM\_001126115) Human Untagged Clone - SC322927

OTI Annotation: 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.

**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).

**Reconstitution Method:** 1. Centrifuge at 5,000xg for 5min.

2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.

3. Close the tube and incubate for 10 minutes at room temperature.

4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

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.

**RefSeq:** <u>NM 001126115.1, NP 001119587.1</u>

 RefSeq Size:
 2271 bp

 RefSeq ORF:
 786 bp

 Locus ID:
 7157

 UniProt ID:
 P04637

 Cytogenetics:
 17p13.1

**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

**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 (5) uses an alternate promoter and lacks multiple 5' exons, compared to variant 1. This variant can initiate translation from two in-frame AUG start codons. The isoform represented in this variant (d, also known as delta133p53alpha) results

from translation initiation at the upstream start codon. It has a shorter N-terminus, compared to isoform a. This variant is supported by data in PMID:16131611.