

Product datasheet for **KN200003LP**

p53 (TP53) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control
Donor DNA:	Luciferase-Puro
Symbol:	p53
Locus ID:	7157
Components:	KN200003G1 , p53 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) KN200003G2 , p53 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) KN200003LPD , donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette.

Homologous arm and Luciferase-Puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **Luciferase-Puro in green**; **Right arm in violet**

```
AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAGCG GTTAGCTCCT TCGGTCCTCC GATCGTTGTC
AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCAATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCGGCG
ACCGAGTTGC TCTTGCCCGG CGTCAATACG GGATAATACC GCGCCACATA GCAGAACTTT AAAAGTGCTC
ATCATTGGAA AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCCTG GTTGAGATCC AGTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCAGC GTTTCTGGGT GAGCAAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAACA AATAGGGGTT CCGCGCAT TCCCCGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCTTTTCGGG TCGCGCGTTT CGGTGATGAC
GGTGAAAACC TCTGACACAT GCAGCTCCCG TTGACGGTCA CAGCTTGTCT GTAAGCGGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTCGC GTTAAATTTT
TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG GCAAAATCCC TTATAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCACTA CGTGAACCAT CACCAAATC AAGTTTTTTG
GGTTCGAGGT GCCGTAAGC ACTAAATCGG AACCTAAAG GGAGCCCCG ATTTAGAGT TGACGGGGAA
AGCCGGCGAA CGTGCGGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTACG CTGCGCGTAA CCACCACACC CGCCGCGCTT AATGCGCCG TACAGGGCGC GACTATGTT
TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATGCGT AAGGAGAAAA TACCGCATCA GGCGCCATTC
GCCATTACAG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGCTATTACG CCAGCTGGCG
AAAGGGGAT GTGCTGCAAG GCGATTAAGT TGGGTAACGC CAGGGTTTTT CCAGTCACGA CGTTGTAAAA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTACTGA CTGACTGACT GCGTCTCAA
ACGGAGGCTG AGGCGGGCCG ATCACCTGAA GTAAGGAGTT CGAGACCAGC CTGGCCAACA TGCAAAGCCC
TGCTCTACT AAAAATACAA AAATTAGCTG GGTGTGGTGG TACTCGCTG TAATCCAGC TACTCGGGAG
```



[View online »](#)

ACTGAGGCAG GAGAATGGCT TGAACCCGGA AGGTAGAGGT TGCAGTGAGC TGAGATCATG CCACTGTGCT
 CCAGCCTAGG TGACAGAGAG AGACTCCATC TCAAAAAAAAA AAAAAAAAAATA CAGGAAGGGA GTTGGGAATA
 GGGTGACAT TTAGGAAGTC TTGGGGATTT AGTGGTGGGA AGGTTGGAAG TCCCTCTCTG ATTGTCTTTT
 CCTCAAAGAA GTGCATGGCT GGTGAGGGGT GGGGCAGGAG TGCTTGGGTT GTGGTGAAC ATTGGAAGAG
 AGAATGTGAA GCAGCCATTC TTTTCTGCT CCACAGGAAG CCGAGCTGTC TCAGACACTG GCATGGTGTT
 GGGGGAGGGG GTTCCTTCTC TGCAGGCCCA GGTGACCCAG GGTGGAAGT GTCTCATGTG GGATCCCCAC
 TTTTCTCTT GCAGCAGCCA GACTGCCTTC CGGGTCACTG CCACTAGCAT GGAAGACGCC AAAAAACATAA
 AGAAAGGCC AGCGCCATTC TACCCACTCG AAGACGGGAC CGCCGGCGAG CAGCTGCACA AAGCCATGAA
 GCGCTACGCC CTGGTGCCCG GCACCATCGC CTTTACCAGC GCACATATCG AGGTGGACAT TACCTACGCC
 GAGTACTTCG AGATGAGCGT TCGGCTGGCA GAAGCTATGA AGCGCTATGG GCTGAATACA AACCATCGGA
 TCGTGGTGTG CAGCGAGAAT AGCTTGCACT TCTTCATGCC CGTGTGGGT GCCCTGTTC ACGGTGTGGC
 TGTGGCCCA GCTAACGACA TCTACAACGA GCGCGAGCTG CTGAACAGCA TGGGCATCAG CCAGCCCACC
 GTCGTATTCG TGAGCAAGAA AGGGCTGCAA AAGATCCTCA ACGTGCAAAA GAAGCTACCG ATCATAAAA
 AGATCATCAT CATGGATAGC AAGACCGACT ACCAGGGCTT CCAAAGCATG TACACCTTCG TGACTTCCA
 TTTGCCACC GGCTTCAACG AGTACGACTT CGTGCCCGAG AGCTTCGACC GGGACAAAAC CATCGCCTG
 ATCATGAACA GTAGTGGCAG TACCGGATTG CCAAGGGCG TAGCCCTACC GCACCGCACC GCTTGTGTCC
 GATTCACTCA TGCCCGCGAC CCCATCTTCG GCAACCAGAT CATCCCCGAC ACCGCTATCC TCAGCGTGGT
 GCCATTTAC CACGGCTTCG GCATGTTAC CACGCTGGG TACTTGATCT GCGGCTTTCG GGTCGTGCTC
 ATGTACCCT TCGAGGAGGA GCTATTCTTG CGCAGCTTGC AAGACTATAA GATTCAATCT GCCCTGCTGG
 TGCCCACT ATTTAGCTT TCGCTAAGA GCACTCAT CGACAAGTAC GACCTAAGCA ACTTGCACGA
 GATCGCCAGC GCGGGGCGC CGCTCAGCAA GGAGGTAGT GAGGCCGTGG CCAAACGCTT CCACCTACCA
 GGCATCCGCC AGGGTACGG CCTGACAGAA ACAACACGG CCATTCTGAT CACCCCGAA GGGGACGACA
 AGCCTGGCG AGTAGGCAAG TGTGGTCCCT TCTTCGAGG TAAGGTGGTG GACTTGGATA CCGGTAAGAC
 ACTGGGTGTG AACCGAGCGG GCGAGCTGTG CGTCCGTGGC CCCATGATCA TGAGCGGTA CCGTAAACAC
 CCCGAGGCTA CAAACGCTCT CATCGACAAG GACGGCTGGC TGCACAGCG CGACATCGC TACTGGGACG
 AGGACGAGCA CTCTTCATC GTGGACGGC TGAAGAGCCT GATCAAATAC AAGGGTACC AGGTAGCCCC
 AGCCGAATG GAGAGCATCC TGCTGCAACA CCCAACATC TTCGACGCC GGGTCGCCG CCTGCCGAC
 GACGATGCC GCGAGCTGCC CGCCGAGTC GTCGTGCTGG AACACGGTAA AACCATGACC GAGAAGGAGA
 TCGTGGACTA TGTGGCCAGC CAGGTTACAA CCGCAAGAA GCTGCGCGT GGTGTTGTG TCGTGGACGA
 GGTGCCTAAA GGACTGACCG GCAAGTTGGA CGCCCGAAG ATCCGCGAGA TTCTCATTAA GGCCAAGAAG
 GGGGAAAGA TCGCGTGTA AGAATTCCGA TCATATTCAA TAACCCTAA TATAACTTCG TATAATGTAT
 GCTATACGAA GTTATTAGG CTGAAGAGGA GTTACGTCC AGCCAAGCTT AGGATCTCGA CCTCGAAATT
 CTACCGGTA GGGGAGGCG TTTTCCCAAG GCACTGTGGA GCATGCGCT TAGCAGCCCC GCTGGGCACT
 TGGCGTACA CAAGTGGCCT CTGGCCTCGC ACACATTCCA CATCCACCG TAGGCGCAA CCGACTCCGT
 TCTTTGGTGG CCCCTTCGCG CCACCTTCTA CTCCTCCCT AGTCAGGAAG TTCCCCCG CCCCAGCT
 CGCGTCGTG AGGACGTGAC AAATGGAAGT AGCACGTCT ACTAGTCTG TGCAGATGGA CAGCACCGT
 GAGCAATGGA AGCGGTAGG CCTTTGGGG AGCGCCAAT AGCAGCTTTG CTCCTTCGT TTCTGGGCTC
 AGAGGCTGG AAGGGTGGG TCCGGGGCG GGCTCAGGG CGGGCTCAG GCGGGGCGG GCGCCGAAG
 GTCCTCCGA GGCCCGCAT TCTGCACGT TCAAAAGCGC ACGTCTGCC CGTGTCTC CTCTTCTCA
 TCTCCGGGC TTTGACCTG CATCCATCTA GATCTCGAG AGCTGAAGT TACCATGACC GAGTACAAGC
 CCACGGTGC CCTCGCCACC CGCGACGAC TCCCAGGGC CGTACGCACC CTCGCCCG CGTTCCCGA
 CTACCCGCC ACGCGCCACA CCGTCGATCC GGACCGCAC ATCGAGCGG TCACCGAGT GCAAGAATC
 TTCTCACGC GCGTCGGGCT CGACATCGGC AAGGTGTGG TCGCGACGA CGGCGCCG GTGGCGGTCT
 GGACACGCC GGAGAGCGT GAAGCGGGG CGGTGTTGCG CGAGATCGG CCGCGCATG CCGAGTTGAG
 CGGTTCCCG CTGGCCGCG AGCAACAGAT GGAAGGCTC CTGGCGCCG ACCGGCCAA GGAGCCCGG
 TGGTCTCGG CCACCGTCG CGTCTCGCC GACCACCAG GCAAGGTCT GGGCAGCGC GTCGTGCTC
 CCGGAGTGA GCGGCGGAG CGCGCCGGG TGCCCGCTT CTGGAGACC TCCGCGCCC ACAACCTCC
 CTTCTACGAG CGGCTCGGCT TACCGTCAC CGCCGAGTC GAGGTGCCG AAGGACCGC CACCTGGTGC
 ATGACCCGA AGCCCGGTG CTGACGCCG CCCCACGACC CGCAGCGCC GACCGAAAG AGCGCACGAC
 CCCATGCATC GATGATATCA GATCCCCGG ATGCAGAAAT TGATGATCTA TTAACAATA AAGATGTCCA
 CTAATGGA AGTTTTCTT GTCATACTT GTTAAGAAG GTGAGAACAG AGTACCTACA TTTTGAATGG
 AAGATTGGA GCTACGGGG TGGGGTGGG GTGGATTAG ATAATGCCT GCTCTTACT GAAGGCTCTT

TACTATTGCT TTATGATAAT GTTTCATAGT TGGATATCAT AATTTAAACA AGCAAAACCA AATTAAGGGC
 CAGCTCATTG CTCCCACTCA TGATCTATAG ATCTATAGAT CTCTCGTGGG ATCATTGTTT TTCTCTTGAT
 TCCCACTTTG TGGTTCTAAG TACTGTGGTT TCCAAATGTG TCAGTTTCAT AGCCTGAAGA ACGAGATCAG
 CAGCCTCTGT TCCACATACA CTTCACTTCT AGTATTGTTT TGCCAAGTTC TAATTCATC AGAAGCTGGT
 CGAGATCCGG AACCTTAAT ATAACTTCGT ATAATGTATG CTATACGAAG TTATTAGGTC CCTCGAAGAG
 GTTCACTAGG CGCGCCGAG AGACCTGTGG GAAGCGAAAA TTCCATGGGA CTGACTTTCT GCTCTTGTCT
 TTCAGACTTC CTGAAAACAA CGTTCGTGTA AGGACAAGGG TTGGGCTGGG GACCTGGAGG GCTGGGGACC
 TGGAGGGCTG GGGGGCTGGG GGGCTGAGGA CCTGGTCTCT TGACTGCTCT TTTACCCAT CTACAGTCCC
 CCTTGCCGTC CCAAGCAATG GATGATTGA TGCTGTCCCC GGACGATATT GAACAATGGT TCACTGAAGA
 CCCAGGTCCA GATGAAGCTC CCAGAATGCC AGAGGCTGCT CCCCCGTGG CCCCTGCACC AGCAGCTCCT
 ACACCGCGG CCCCTGCACC AGCCCCCTCC TGGCCCCGTG CATCTTCTGT CCCTTCCAG AAAACCTACC
 AGGGCAGCTA CGGTTTCCGT CTGGGCTTCT TGCATTCTGG GACAGCCAAG TCTGTGACTT GCACGGTCAG
 TTGCCCTGAG GGGCTGGCTT CCATGAGACT TCAATGCCTG GCCGTATCCC CCTGCATTTT TTTTGTGGG
 AACTTTGGGA TTCCTTCA CCCTTTGGCT TCCTGTCTAGT GTTTTTTAT AGTTTAAAC AGAGACGACT
 GACTGACTGA CTGGAAGAG GAAGGGCTGG AAGAGGAAGG AGCTTGGCGT AATCATGGT ATAGCTGTTT
 CCTGTGTGAA ATTGTTATCC GCTCACAATT CCACACAACA TACGAGCCGG AAGCATAAAG TGTAAGCCT
 GGGGTGCCTA ATGAGTGAGC TAACTCATAT TAATTGCGTT GCGCTCACTG CCCGCTTTCC AGTCGGGAAA
 CCTGTCTGTC CAGCTGCATT AATGAATCGG CCAACGCGCG GGGAGAGGCG GTTTGCGTAT TGGGCGCTCT
 TCCGCTTCTT CGCTCACTGA CTCGCTGCGC TCGGTGCTTC GGCTGCGGCG AGCGGTATCA GCTCACTCAA
 AGGCGGTAAT ACGGTTATCC ACAGAATCAG GGGATAACGC AGGAAAGAAC ATGTGAGCAA AAGGCCAGCA
 AAAGGCCAGG AACCGTAAAA AGGCCGCGTT GCTGGCGTTT TTCCATAGGC TCCGCCCCCC TGACGAGCAT
 CACAAAAATC GACGCTCAAG TCAGAGGTGG CGAAACCCGA CAGGACTATA AAGATACCAG GCGTTTCCCC
 CTGGAAGCTC CCTCGTGCGC TCTCCTGTTC CGACCTGCC GCTTACCGGA TACCTGTCCG CCTTTTCCCC
 TTCGGGAAGC GTGGCGCTTT CTCATAGCTC ACGCTGTAGG TATCTCAGTT CGGTGTAGGT CGTTCCGCTCC
 AAGCTGGGCT GTGTGCACGA ACCCCCCGTT CAGCCCCGACC GCTGCGCCTT ATCCGGTAAC TATCGTCTTG
 AGTCCAACCC GGTAAGACAC GACTTATCGC CACTGGCAGC AGCCACTGGT AACAGGATTA GCAGAGCGAG
 GTATGTAGGC GGTGCTACAG AGTTCTTGAA GTGGTGGCCT AACTACGGCT AACTAGAAG AACAGTATTT
 GGTATCTGCG CTCTGCTGAA GCCAGTTACC TTCGAAAAA GAGTTGGTAG CTCTTGATCC GGCAAACAAA
 CCACCGCTGG TAGCGGTGGT TTTTTTGTTC GCAAGCAGCA GATTACGCGC AGAAAAAAG GATCTCAAGA
 AGATCCTTTG ATCTTTTCTA CGGGGTCTGA CGCTCAGTGG AACGAAAAT CACGTTAAGG GATTTTGGTC
 ATGAGATTAT CAAAAAGGAT CTTACCTAG ATCCTTTTAA ATTAATAATG AAGTTTTAAA TCAATCTAAA
 GTATATATGA GTAAACTTGG TCTGACAGTT ACCAATGCCT AATCAGTGAG GCACCTATCT CAGCGATCTG
 TCTATTTCTG TCATCCATAG TTGCCTGACT CCCCCTCGTG TAGATAACTA CGATACGGGA GGGCTTACCA
 TCTGGCCCCA GTGCTGCAAT GATACCGCGA GAACCACGCT CACCGGCTCC AGATTTATCA GCAATAAACC
 AGCCAGCCGG AAGGGCCGAG CGCAGAAGTG GTCCTGCAAC TTTATCCGCC TCCATCCAGT CTATTAATTG
 TTGCCGGGAA GCTAGAGTAA GTAGTTCGCC AGTTAATAGT TTGCGCAACG TTGTTGCCAT TGCTACAGGC
 ATCGTGGTGT CACGCTCGTC GTTTGGTATG GCTTCATTCA GCTCCGGTTC CCAACGATC

GE100003, scramble sequence in pCas-Guide vector

Disclaimer:

These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

RefSeq:

[NM_000546](#), [NM_001126112](#), [NM_001126113](#), [NM_001126114](#), [NM_001126115](#),
[NM_001126116](#), [NM_001126117](#), [NM_001126118](#), [NM_001276695](#), [NM_001276696](#),
[NM_001276697](#), [NM_001276698](#), [NM_001276699](#), [NM_001276760](#), [NM_001276761](#)

UniProt ID:

[P04637](#)

Synonyms:

BCC7; LFS1; P53; TRP53

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]

Product images:

