

Product datasheet for **KN217764**

ROCK2 Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	ROCK2
Locus ID:	9475
Components:	<p>KN217764G1, ROCK2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AAAATCTAAATCAAGGACCA</p> <p>KN217764G2, ROCK2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: ATTTAGATTTTCCTGCTTTG</p> <p>KN217764D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p>

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **GFP-puro in green**; **Right arm in violet**

```

AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAAGCG GTTAGCTCCT TCGGTCCTCC GATCGTTGTC
AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCCGGC
ACCGAGTTGC TCTTGCCCGG CGTCAATACG GGATAATACC GCGCCACATA GCAGAATTTT AAAAGTGCTC
ATCATTGGAA AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCCTG GTTGAGATCC AGTTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCAGC GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAAACA AATAGGGGTT CCGCGCACAT TTCCCGGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGGG TCGCGGTTT CGGTGATGAC
GGTAAAACC TCTGACACAT GCAGCTCCCG TTGACGGTCA CAGCTTGCT GTAAAGCGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG 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 TGGCCCACTA CGTGAACCAT CACCCAATC AAGTTTTTTG
GGGTCGAGGT GCCGTAAAGC ACTAAATCGG AACCCATAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGCGGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTACAG CTGCGGTAA CCACCACACC CGCCGCGCTT AATGCGCCGC TACAGGGCGC GACTATGGT
TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATCGCT AAGGAGAAAA TACCGCATCA GGCGCCATC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGCTATTACG CCAGCTGGCG
AAAGGGGAT GTGCTGCAAG GCGATTAAGT TGGTAACGC CAGGGTTTTC CCAGTACGA CGTTGTAATA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACAGG CTGTCGCCGT GCTCATTTGA

```



[View online »](#)

TAACTGCCCG TTATTCATGC GACACCCTCC ACCATTATGT GTATATAGTT TTTTCTGTG TTAATGCATG
 TTCACTGTAG AAAATATGGG AAATACAGAA ATGTAAGAA AAAATAGAAA TCCAGACAAT GCATCATCCT
 TTTGTTGTG TTTTAAGAGG AAATTTAGTT TTGAGACTGA GCTCCCAGAG GGTAAGGATG GTGTTATTTA
 TTTTGGATT TTCTCTTCTT AATCTGCACT AGGCACAACA TTAATGCAGG TTTAATGAGA GGAACCTTAG
 TGAGCTGTA TTTCTTGAAG TCAAAACCTG ATGAAATTTG GCCATTTGAA GAGAGAAAAG AAGACATCTG
 TCTAGCAAAA ATAATAATAG ATACATGTTT TGAATTACA TTTTCCATT GGCCGAAAGA ACACAGGAAA
 ACATGATAGG GGCAGTCTA ATATTCTCTG ACAGAGTTTA GGAAACCAGT TAAAGCTGTT GGATATGGAA
 CTTATGGACA CTATCATATC AAAGTGGGTT GGCATTTTCC TGGTGAAAAT GACATAAATA AAATTAAGAA
 ACTTTTTTAA ATGAATGCTT GGAAATTGTA AAAACTGTCA TTTCTCTTT TTATTTCTTA ACAGGCCTAG
 CATGGAGAGC GACGAGAGCG GCCTGCCCGC CATGGAGATC GAGTGCCGCA TCACCGGCAC CCTGAACGGC
 GTGGAGTTCG AGCTGGTGGG CGGCGGAGAG GGCACCCCGC AGCAGGGCCG CATGACCAAC AAGATGAAGA
 GCACCAAAGG CGCCCTGACC TTCAGCCCTT ACCTGCTGAG CCACGTGATG GGCTACGGCT TCTACCACTT
 CGGCACCTAC CCCAGCGGCT ACGAGAACCC CTTCTGACG GCCATCAACA ACGGCGGCTA CACCAACACC
 CGCATCGAGA AGTACGAGGA CGGCGGCGTG CTGCACGTGA GCTTCAGCTA CCGCTACGAG GCCGGCCGCG
 TGATCGGCGA CTTCAAGGTG ATGGGCACCG GCTTCCCGA GGACAGCGTG ATCTTACCAG ACAAGATCAT
 CCGCAGCAAC GCCACCCTGG AGCACCTGCA CCCCATGGGC GATAACGATC TGGATGGCAG CTTACCCCGC
 ACCTTCAGCC TGC GCGACGG CGGCTACTAC AGCTCCGTGG TGGACAGCCA CATGCACCTT AAGAGCGCCA
 TCCACCCAG CATCCTGCAG AACGGGGGCC CCATGTTTCG CTTCCGCGC GTGGAGGAGG ATCACAGCAA
 CACCGAGCTG GGCATCGTGG AGTACCAGCA CGCCTTCAAG ACCCCGGATG CAGATGCCGG TGAAGAAAGA
 GTTTAAGAAT TCCGATCATA TTCAATAACC CTTAATATAA CTTCTGATAA TGTATGCTAT ACGAAGTTAT
 TAGGTCTGAA GAGGAGTTTA CGTCCAGCCA AGCTTAGGAT CTCGACCTCG AAATTCTACC GGGTAGGGGA
 GGCCTTTTC CCAAGGCAGT CTGGAGCATG CGCTTTAGCA GCCCGCTGG GCACCTGGCG CTACACAAGT
 GGCCTCTGGC CTCGCACACA TTCCACATCC ACCGGTAGGC GCCAACCGAC TCCGTTCTTT GTTGGCCCTT
 TCGCGCCACC TTCTACTCCT CCCCTAGTCA GGAAGTTCCC CCCC GCCCGCAGCTCGCGT CGTGCAGGAC
 GTGACAAATG GAAGTAGCAC GTCTACTAG TCTCGTGAG ATGGACAGCA CCGCTGAGCA ATGGAAGCGG
 GTAGGCCTTT GGGGAGCGG CCAATAGCAG CTTTGTCTCT TCGCTTCTG GGCTCAGAGG CTGGGAAGGG
 GTGGGTCCGG GGGCGGCTC AGGGGCGGGC TCAGGGGCGG GCGGGGCGCC CGAAGGTCTT CCGGAGGCC
 GGCATTCTGC ACGCTTCAAA AGCGCACGTC TGCCGCGCTG TTCTCCTCTT CCTCATCTCC GGGCCTTTCG
 ACCTGCATCC ATCTAGATCT CGAGCAGCTG AAGCTTACCA TGACCGAGTA CAAGCCACG GTGCGCCTCG
 CCACCCGCGA CGACGTCCC AGGGCCGTAC GCACCCTCGC CGCCGCGTTC GCCGACTACC CCGCCACGCG
 CCACACCGTC GATCCGGACC GCCACATCGA GCGGGTCACC GAGCTGCAAG AACTCTTCTT CACGCGGCTC
 GGGCTCGACA TCGGCAAGGT GTGGGTGCGG GACGACGGCG CCGCGGTGGC GGTCTGACC ACGCCGAGA
 GCGTCAAGC GGGGCGGCTG TTCGCCGAGA TCGGCCCGC CATGGCCGAG TTGAGCGGTT CCCGGCTGGC
 CGCGCAGCAA CAGATGGAAG GCCTCCTGGC GCCGACCGG CCCAAGGAGC CCGCGTGGTT CCTGGCCACC
 GTCGGCGTCT CGCCGACCA CCAGGGCAAG GGTCTGGGCA GCGCCGTCGT GCTCCCCGGA GTGGAGGCGG
 CCGAGCGCGC CGGGGTGCC GCCTTCTTGG AGACCTCCG GCCCACAACT CTCCCCTTCT ACGAGCGGCT
 CGGCTTACC GTCACCGCCG ACGTCGAGGT GCCCGAAGGA CCGCGCACCT GGTGCATGAC CCGCAAGCCC
 GGTGCCTGAC GCCCGCCCA CGACCCGACG CGCCGACCG AAAGGAGCGC ACGACCCAT GCATCGATGA
 TATCAGATCC CCGGATGCA GAAATTGATG ATCTATTA CAATAAAGAT GTCCACTAAA ATGGAAGTTT
 TTCTGTCTAT ACTTTGTTAA GAAGGTGAG AACAGAGTAC CTACATTTT AATGGAAGGA TTGGAGCTAC
 GGGGTGGGG GTGGGTGGG ATTAGATAAA TGCTGTCTT TTAAGTGAAG CTCTTTACTA TTGCTTTATG
 ATAATGTTT ATAGTTGGAT ATCATAATTT AAACAAGCAA AACCAAATTA AGGGCCAGCT CATTCTCTCC
 ACTCATGATC TATAGATCTA TAGATCTCTC GTGGGATCAT TGTTTTTCTT TTGATTTCCA CTTTGTGGTT
 CTAAGTACTG TGGTTTCCAA ATGTGTCAGT TTCATAGCCT GAAGAACGAG ATCAGCAGCC TCTGTTCCAC
 ATACACTTCA TTCTCAGTAT TGTTTTGCCA AGTTCTAATT CCATCAGAAG CTGGTCGAGA TCCGGAACCC
 TTAATATAAC TTCGTATAAT GTATGCTATA CGAAGTTATT AGGTCCCTCG AAGAGGTTCA CTAGGCGCGC
 CGTAAGTATG TTTAACTTC ATATTTGATC TTATAACTCT ACTTTTGATA AGAGATTTTT GTTTGGTTAT
 TATCAGCCTA TAAATTTATT AATTTAATCA ACTTATTAT TAAACTTAAG TCTTTTGCTT ACCATTGAT
 TTATTCAAAA ATTGTTACTT TTATTTTTAA AGCAATTGCA GAACCGAATT ACAATATGCA AAGCAGATAA
 AGTTCTAAT TTTGAAATAC ATTATTAAGA CTATTTTAGG ACAGGTTATT TATAGCAGTT TGAAGAGAAG
 TTTTAAATTA ATATTTACAA TTCCAAGACT TAATATTGCC CAGAGAATTA ATAAGCTTTA TACTTCTGTA
 ATTGTGGACA TTTCAGACTA GTTAATAATA AATAATGTAA CTATTATTAC CATATGTGTG GTAACCCCTA

ATCTTTGCCA TTATTAATGT TGCAATGCAG AAGTAAGTGA AATTGAATTC CAAGAATAAG AAATTCTCAA
 AACAAATTAAT GTATACATTG TATCATCACA GTAAGCTCTT TACTTTGAAA TTGGCAGAGA CTGAGGTATT
 TTCCCAATTA AACAATCTTA TCTATAGTTA CTATTTATAT ATCACTCTCG CCGGTTGGAC TTTAGATCAG
 AAGGGATCTT GCTGCCGCC GAAAGAGGAA GGGCTGGAAG AGGAAGGAGC TTGGCGTAAT CATGGTCATA
 GCTGTTTCCT GTGTGAAATT GTTATCCGCT CACAATTCCA CACAACATAC GAGCCGGAAG CATAAAGTGT
 AAAGCCTGGG GTGCCTAATG AGTGAGCTAA CTCACATTAA TTGCGTTGCG CTCACTGCCC GCTTTCCAGT
 CGGGAAACCT GTCGTGCCAG CTGCATTAAT GAATCGGCCA ACGCGCGGGG AGAGGCGGTT TGCATATTGG
 GCGCTCTTCC GCTTCCTCGC TCACTGACTC GGTGCGCTCG GTCGTTTCGGC TCGGGCGAGC GGTATCAGCT
 CACTCAAAGG CGGTAATACG GTTATCCACA GAATCAGGGG ATAACGCAGG AAAGAACATG TGAGCAAAAAG
 GCCAGCAAAA GGCCAGGAAC CGTAAAAAGG CCGCGTTGCT GGCGTTTTTC CATAGGCTCC GCCCCCCTGA
 CGAGCATCAC AAAAATCGAC GCTCAAGTCA GAGGTGGCGA AACCCGACAG GACTATAAAG ATACCAGGCG
 TTTCCCCCTG GAAGCTCCCT CGTGCGCTCT CCTGTTCCGA CCCTGCCGCT TACCGGATAC CTGTCCGCT
 TTCTCCCTTC GGAAGCGTG GCGCTTTCTC ATAGCTCAG CTGTAGGTAT CTCAGTTCGG TGTAGGTCGT
 TCGCTCCAAG CTGGGCTGTG TGCACGAACC CCCCCTCAG CCCGACCCT GCGCCTTATC CGGTAACTAT
 CGTCTTGAGT CCAACCCGGT AAGACACGAC TTATCGCCAC TGGCAGCAGC CACTGGTAAC AGGATTAGCA
 GAGCGAGGTA TGTAGGCGGT GCTACAGAGT TCTTGAAGTG GTGGCCTAAC TACGGCTACA CTAGAAGAAC
 AGTATTTGGT ATCTGCGCTC TGCTGAAGCC AGTTACCTTC GGAAAAAGAG TTGGTAGCTC TTGATCCGGC
 AAACAAACCA CCGCTGGTAG CCGTGGTTTT TTTGTTTGCA AGCAGCAGAT TACGCGCAGA AAAAAAGGAT
 CTCAAGAAGA TCCTTTGATC TTTTCTACGG GGTCTGACGC TCAGTGGAAC GAAAACCTCAC GTTAAGGGAT
 TTTGGTCATG AGATTATCAA AAAGGATCTT CACCTAGATC CTTTTAAATT AAAAAATGAAG TTTTAAATCA
 ATCTAAAGTA TATATGAGTA AACTTGGTCT GACAGTTACC AATGCTTAAT CAGTGAGGCA CCTATCTCAG
 CGATCTGTCT ATTTTCGTTCA TCCATAGTTG CCTGACTCCC CGTCGTGTAG ATAACCTACG TACGGGAGGG
 CTTACCATCT GGCCCCAGTG CTGCAATGAT ACCGCGAGAA CCACGCTCAC CGGCTCCAGA TTTATCAGCA
 ATAAACCAGC CAGCCGGAAG GGCCGAGCGC AGAAGTGGTC CTGCAACTTT ATCCGCTCC ATCCAGTCTA
 TTAATTGTTG CCGGGAAGCT AGAGTAAGTA GTTCGCCAGT TAATAGTTTG CGCAACGTTG TTGCCATTGC
 TACAGGCATC GTGGTGTAC GCTCGTCGTT TGGTATGGCT TCATTCAGCT CCGGTTCCCA ACGATC

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_001321643](#), [NM_004850](#)

UniProt ID:

[O75116](#)

Synonyms:

ROCK-II

Summary:

The protein encoded by this gene is a serine/threonine kinase that regulates cytokinesis, smooth muscle contraction, the formation of actin stress fibers and focal adhesions, and the activation of the c-fos serum response element. This protein, which is an isozyme of ROCK1 is a target for the small GTPase Rho. [provided by RefSeq, Jul 2008]

Product images:

