OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for KN308748

Keap1 Mouse 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: Keap1

Locus ID: 50868

Components: **KN308748G1**, Keap1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCGGGGAGCCCCGCTAAGCT
KN308748G2, Keap1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCTCGGGGCACTTTGACCAC
KN308748D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.
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 TGGCCGCAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCGGCG
ACCGAGTTGC TCTTGCCCGG CGTCAATACG GGATAATACC GCGCCACATA GCAGAACTTT AAAAGTGCTC
ATCATTGGAA AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCGCT GTTGAGATCC AGTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTCACCAGC GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAAACA AATAGGGGTT CCGCGCACAT TTCCCCGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGGG TCGCGCGTTT CGGTGATGAC
GGTGAAAACC TCTGACACAT GCAGCTCCCG TTGACGGTCA CAGCTTGTCT GTAAGCGGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAAACGTT AATATTTTGT TAAAATTCGC GTTAAATTTT
TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG GCAAAATCCC TTATAAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT CACCCAAATC AAGTTTTTTG
GGGTCGAGGT GCCGTAAAGC ACTAAATCGG AACCCTAAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGGCGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTCACG CTGCGCGTAA CCACCACACC CGCCGCGCTT AATGCGCCGC TACAGGGCGC GTACTATGGT
TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATGCGT AAGGAGAAAA TACCGCATCA GGCGCCATTC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGCTATTACG CCAGCTGGCG
AAAGGGGGAT GTGCTGCAAG GCGATTAAGT TGGGTAACGC CAGGGTTTTC CCAGTCACGA CGTTGTAAAA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACAGG CTGTCGCCGT GCTCATTTGA
```


View online »

TAACTGCCCG TTATTCATGC GACACTGTCT TCTCGCTGTG TCTCTGGAGC TCAGAGCAGT CCCAAATACA
TAAATGGCAG GCTCTGTAAA TGTTGGTGTG GTGTTGAAAG GAATCTGACA TGTTGGACGA AGGCAAGGGG
AGGGAAGGAT GGCTGGAACA GTGAAGAGGT TGGAAAGCGG GTGTGGAGTT TTACAGGCCA TTGACGATTT
GGGGTTTCCA TTCTTGGGCT CGGTGAAAGG TGTTGGGTGA TTCTGAGCAG GAAAAGGAAC ATGATATGCC
CTGAAGGCCC GCGAGTTGAG AAGTTAGTTT GAATGGAGCC GGCTGTGTCC AGTTTACTTG GCTTGGCAAA
ATCTGCACTT AGATATCATT GCTTAGTCTT GCAAAAAAAG AAGCCTGGCT GGACATGGTG GCACATACTG
TAATCCCAGC ACTCGGGAGG AGCCAGCTTT GGTTGCATAG TGAGTTGGAA GCCAGCCTAG GCTATGTAAG
ACCCTGTCTC AAATAAAATA AAATAAAGTG GCAGGGTCTG GTCTAACCCA GCCTCTGTTC CCAGCGCTGT
GCTCTTCCCT CCCTCCAGGC CCCTAACGGC TAGCAGAGGA ACTGTGTCTT GTCATCAGGA ACCCCACTAG
CATGGAGAGC GACGAGAGCG GCCTGCCCGC CATGGAGATC GAGTGCCGCA TCACCGGCAC CCTGAACGGC
GTGGAGTTCG AGCTGGTGGG CGGCGGAGAG GGCACCCCCG AGCAGGGCCG CATGACCAAC AAGATGAAGA
GCACCAAAGG CGCCCTGACC TTCAGCCCCT ACCTGCTGAG CCACGTGATG GGCTACGGCT TCTACCACTT
CGGCACCTAC CCCAGCGGCT ACGAGAACCC CTTCCTGCAC GCCATCAACA ACGGCGGCTA CACCAACACC
CGCATCGAGA AGTACGAGGA CGGCGGCGTG CTGCACGTGA GCTTCAGCTA CCGCTACGAG GCCGGCCGCG
TGATCGGCGA CTTCAAGGTG ATGGGCACCG GCTTCCCCGA GGACAGCGTG ATCTTCACCG ACAAGATCAT
CCGCAGCAAC GCCACCGTGG AGCACCTGCA CCCCATGGGC GATAACGATC TGGATGGCAG CTTCACCCGC
ACCTTCAGCC TGCGCGACGG CGGCTACTAC AGCTCCGTGG TGGACAGCCA CATGCACTTC AAGAGCGCCA
TCCACCCCAG CATCCTGCAG AACGGGGGCC CCATGTTCGC CTTCCGCCGC GTGGAGGAGG ATCACAGCAA
CACCGAGCTG GGCATCGTGG AGTACCAGCA CGCCTTCAAG ACCCCGGATG CAGATGCCGG TGAAGAAAGA
GTTTAAGAAT TCCGATCATA TTCAATAACC CTTAATATAA CTTCGTATAA TGTATGCTAT ACGAAGTTAT
TAGGTCTGAA GAGGAGTTTA CGTCCAGCCA AGCTTAGGAT CTCGACCTCG AAATTCTACC GGGTAGGGGA
GGCGCTTTTC CCAAGGCAGT CTGGAGCATG CGCTTTAGCA GCCCCGCTGG GCACTTGGCG CTACACAAGT
GGCCTCTGGC CTCGCACACA TTCCACATCC ACCGGTAGGC GCCAACCGAC TCCGTTCTTT GGTGGCCCCT
TCGCGCCACC TTCTACTCCT CCCCTAGTCA GGAAGTTCCC CCCCGCCCCG CAGCTCGCGT CGTGCAGGAC
GTGACAAATG GAAGTAGCAC GTCTCACTAG TCTCGTGCAG ATGGACAGCA CCGCTGAGCA ATGGAAGCGG
GTAGGCCTTT GGGGCAGCGG CCAATAGCAG CTTTGCTCCT TCGCTTTCTG GGCTCAGAGG CTGGGAAGGG
GTGGGTCCGG GGGCGGGCTC AGGGGCGGGC TCAGGGGCGG GGCGGGCGCC CGAAGGTCCT CCGGAGGCCC
GGCATTCTGC ACGCTTCAAA AGCGCACGTC TGCCGCGCTG TTCTCCTCTT CCTCATCTCC GGGCCTTTCG
ACCTGCATCC ATCTAGATCT CGAGCAGCTG AAGCTTACCA TGACCGAGTA CAAGCCCACG GTGCGCCTCG
CCACCCGCGA CGACGTCCCC AGGGCCGTAC GCACCCTCGC CGCCGCGTTC GCCGACTACC CCGCCACGCG
CCACACCGTC GATCCGGACC GCCACATCGA GCGGGTCACC GAGCTGCAAG AACTCTTCCT CACGCGCGTC
GGGCTCGACA TCGGCAAGGT GTGGGTCGCG GACGACGGCG CCGCGGTGGC GGTCTGGACC ACGCCGGAGA
GCGTCGAAGC GGGGGCGGTG TTCGCCGAGA TCGGCCCGCG CATGGCCGAG TTGAGCGGTT CCCGGCTGGC
CGCGCAGCAA CAGATGGAAG GCCTCCTGGC GCCGCACCGG CCCAAGGAGC CCGCGTGGTT CCTGGCCACC
GTCGGCGTCT CGCCCGACCA CCAGGGCAAG GGTCTGGGCA GCGCCGTCGT GCTCCCCGGA GTGGAGGCGG
CCGAGCGCGC CGGGGTGCCC GCCTTCCTGG AGACCTCCGC GCCCCACAAC CTCCCCTTCT ACGAGCGGCT
CGGCTTCACC GTCACCGCCG ACGTCGAGGT GCCCGAAGGA CCGCGCACCT GGTGCATGAC CCGCAAGCCC
GGTGCCTGAC GCCCGCCCCA CGACCCGCAG CGCCCGACCG AAAGGAGCGC ACGACCCCAT GCATCGATGA
TATCAGATCC CCGGGATGCA GAAATTGATG ATCTATTAAA CAATAAAGAT GTCCACTAAA ATGGAAGTTT
TTCCTGTCAT ACTTTGTTAA GAAGGGTGAG AACAGAGTAC CTACATTTTG AATGGAAGGA TTGGAGCTAC
GGGGGTGGGG GTGGGGTGGG ATTAGATAAA TGCCTGCTCT TTACTGAAGG CTCTTTACTA TTGCTTTATG
ATAATGTTTC ATAGTTGGAT ATCATAATTT AAACAAGCAA AACCAAATTA AGGGCCAGCT CATTCCTCCC
ACTCATGATC TATAGATCTA TAGATCTCTC GTGGGATCAT TGTTTTTCTC TTGATTCCCA CTTTGTGGTT
CTAAGTACTG TGGTTTCCAA ATGTGTCAGT TTCATAGCCT GAAGAACGAG ATCAGCAGCC TCTGTTCCAC
ATACACTTCA TTCTCAGTAT TGTTTTGCCA AGTTCTAATT CCATCAGAAG CTGGTCGAGA TCCGGAACCC
TTAATATAAC TTCGTATAAT GTATGCTATA CGAAGTTATT AGGTCCCTCG AAGAGGTTCA CTAGGCGCGC
CTATGCCTCC ACGGAGTGCA AGGCAGAGGT GACGCCCTCG CAGGACGGTA ACCGAACCTT CAGCTACACA
CTAGAGGATC ACACCAAGCA GGCTTTTGGC GTCATGAACG AGCTTCGCCT GAGCCAGCAA CTCTGTGACG
TGACCCTGCA GGTCAAATAT GAGGACATCC CAGCTGCCCA ATTCATGGCT CACAAAGTGG TGCTGGCCTC
CTCCAGCCCA GTCTTTAAAG CCATGTTCAC CAACGGGCTT CGGGAGCAGG GCATGGAGGT GGTGTCCATC
GAAGGCATCC ACCCTAAGGT CATGGAAAGG CTTATTGAGT TCGCCTACAC GGCCTCCATC TCCGTGGGCG
AGAAGTGTGT CCTGCACGTG ATGAACGGGG CGGTCATGTA CCAGATTGAC AGCGTGGTTC GAGCCTGCAG

CGACTTCCTC GTGCAGCAGC TGGACCCCAG CAACGCCATT GGCATCGCCA ACTTCGCGGA GCAGATCGGC
TGCACTGAAC TGCACCAGCG TGCCCGGGAG TATATCTACA TGCACTTCGG GGAGGTGAGT GAAGCCGGGC
TTTGGGCTCA GAAGTGGGAT AGGCCAGCGT GGCGTTCTCC CTCACTCTCG CCGGTTGGAC TTTAGATCAG
AAGGGATCTT GCTGCCGCCC 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 TGCGTATTGG
GCGCTCTTCC GCTTCCTCGC TCACTGACTC GCTGCGCTCG GTCGTTCGGC TGCGGCGAGC GGTATCAGCT
CACTCAAAGG CGGTAATACG GTTATCCACA GAATCAGGGG ATAACGCAGG AAAGAACATG TGAGCAAAAG
GCCAGCAAAA GGCCAGGAAC CGTAAAAAGG CCGCGTTGCT GGCGTTTTTC CATAGGCTCC GCCCCCCTGA
CGAGCATCAC AAAAATCGAC GCTCAAGTCA GAGGTGGCGA AACCCGACAG GACTATAAAG ATACCAGGCG
TTTCCCCCTG GAAGCTCCCT CGTGCGCTCT CCTGTTCCGA CCCTGCCGCT TACCGGATAC CTGTCCGCCT
TTCTCCCTTC GGGAAGCGTG GCGCTTTCTC ATAGCTCACG CTGTAGGTAT CTCAGTTCGG TGTAGGTCGT
TCGCTCCAAG CTGGGCTGTG TGCACGAACC CCCCGTTCAG CCCGACCGCT 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 CGGTGGTTTT TTTGTTTGCA AGCAGCAGAT TACGCGCAGA AAAAAAGGAT
CTCAAGAAGA TCCTTTGATC TTTTCTACGG GGTCTGACGC TCAGTGGAAC GAAAACTCAC GTTAAGGGAT
TTTGGTCATG AGATTATCAA AAAGGATCTT CACCTAGATC CTTTTAAATT AAAAATGAAG TTTTAAATCA
ATCTAAAGTA TATATGAGTA AACTTGGTCT GACAGTTACC AATGCTTAAT CAGTGAGGCA CCTATCTCAG
CGATCTGTCT ATTTCGTTCA TCCATAGTTG CCTGACTCCC CGTCGTGTAG ATAACTACGA TACGGGAGGG
CTTACCATCT GGCCCCAGTG CTGCAATGAT ACCGCGAGAA CCACGCTCAC CGGCTCCAGA TTTATCAGCA
ATAAACCAGC CAGCCGGAAG GGCCGAGCGC AGAAGTGGTC CTGCAACTTT ATCCGCCTCC ATCCAGTCTA
TTAATTGTTG CCGGGAAGCT AGAGTAAGTA GTTCGCCAGT TAATAGTTTG CGCAACGTTG TTGCCATTGC
TACAGGCATC GTGGTGTCAC 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.

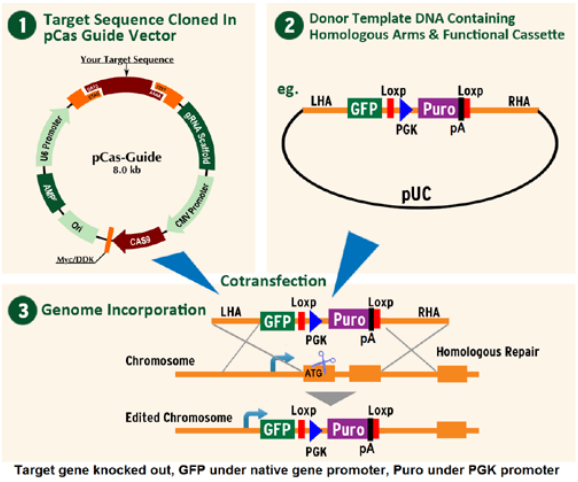
RefSeq: NM_001110305, NM_001110306, NM_001110307, NM_016679

UniProt ID: Q9Z2X8

Synonyms: INRF2; mKIAA0132

Summary: Acts as a substrate adapter protein for the E3 ubiquitin ligase complex formed by CUL3 and RBX1 and targets NFE2L2/NRF2 for ubiquitination and degradation by the proteasome, thus resulting in the suppression of its transcriptional activity and the repression of antioxidant response element-mediated detoxifying enzyme gene expression. Retains NFE2L2/NRF2 and may also retain BPTF in the cytosol. Targets PGAM5 for ubiquitination and degradation by the proteasome (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter