

Product datasheet for **KN211229**

Calcium Sensing Receptor (CASR) 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:	Calcium Sensing Receptor
Locus ID:	846
Components:	<p>KN211229G1, Calcium Sensing Receptor gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGCTCGCTGGTCTGGCCCCGT</p> <p>KN211229G2, Calcium Sensing Receptor gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGGTCCTCTTGGCACTCACC</p> <p>KN211229D, 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 GGGCGAAAAA CTCTCAAGGA TCTTACCGGT GTTGAGATCC AGTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCAGC GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAACA AATAGGGGTT CCGCGCAT TCCCGGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGTC TCGCGGTTT CGGTGATGAC
GGTAAAACC TCTGACACAT GCAGCTCCG GAGACGGTCA CAGCTTGCT GTAAGCGGAT GCCGGGAGCA
GACAAGCCG TCAGGGCGC TCAGCGGGT TGGCGGGT TCGGGGCTG 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 CACCAAATC AAGTTTTTTG
GGTTCGAGT GCCGTAAAGC ACTAAATCGG AACCCATAAG GGAGCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGCGGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTACG CTGCGGTAA CCACCACACC CGCCGCGCTT AATGCGCCG TACAGGGCGC GACTATGGT
TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATCGCT AAGGAGAAAA TACCGCATCA GGCGCCATC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGTATTACG CCAGCTGGCG
AAAGGGGAT GTGCTGCAAG GCGATTAAGT TGGGTAACGC CAGGGTTTTC CCAGTACGA CGTTGTAATA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACAG CTGTCGCCG GCTCATTTGA

```



[View online »](#)

TTAATATTAT TATAACAAA GGAGCTTCTG CTAATAATAG GCCAAATTTA TGCCTCATTC ACACAGGAAA
 ATGAATGGAT TAAAATCCAG CATCAGCACC AGCAGAGGTC TTAGGTTATC AAGGGCCTCT TTAATAATTTG
 ACCTCTCATA ACCTAACATA GTTCTTCCCC AATATGGGCA ATTGACGTTT CCTGTATTTT ACATGAAGTG
 CTATAAAAAT GTGACTCCA GCCAGGCCTT TTCAGTCTGC CACCCCTAGG CCCCTCTAAA TGGAATTCT
 GAGCCACCTT AGTTGCAGTG GTCATCACA GATGGGATTG AGGTTTAGCT GAATCCATTT TGTCTTTCTT
 TTCTTTTAGA AGGCATCACA GGAGGCCTCT GCATGATGTG GCTTCCAAAG ACTCAAGGAC CACCACATT
 ACAAGTCTGG ATTGAGGAAG GCAGAAATGG AGATTCAAAC ACCACGTCTT CTATTATTTT ATTAATCAAT
 CTGTAGACAT GTGTCCCCAC TGCAGGGAGT GAACTGCTCC AAGGGAGAAA CTTCTGGGAG CCTCCAAACT
 CCTAGCTGTC TCATCCCTTG CCTGGAGAG ACGGCAGAAC CACTAGCATG GAGAGCGACG AGAGCGGCCT
 GCCCGCCATG GAGATCGAGT GCCGCATCAC CGGCACCCTG AACGGCGTGG AGTTCGAGCT GGTGGGCGGC
 GGAGAGGGCA CCCCAGCA GGGCCGCATG ACCAACAAGA TGAAGAGCAC CAAAGGCGCC CTGACCTTCA
 GCCCTACCT GCTGAGCCAC GTGATGGGCT ACGGCTTCTA CCACTTCGGC ACCTACCCCA GCGGCTACGA
 GAACCCCTTC CTGCACGCCA TCAACAACGG CGGCTACACC AACACCCGCA TCGAGAAGTA CGAGGACGGC
 GCGTGCTGC ACGTGAGCTT CAGCTACCGC TACGAGGCCG GCCGCGTGAT CGGCGACTTC AAGGTGATGG
 GCACCGGCTT CCCCAGGAC AGCGTGATCT TCACCGACAA GATCATCCGC AGCAACGCCA CCGTGGAGCA
 CCTGCACCCC ATGGGCGATA ACGATCTGGA TGGCAGCTTC ACCCGCACCT TCAGCCTGCG CGACGCGCGC
 TACTACAGCT CCGTGGTGA CAGCCACATG CACTTCAAGA GCGCCATCCA CCCCAGCATC CTGCAGAACG
 GGGGCCCCAT GTTCGCCTTC CGCCGCGTGG AGGAGGATCA CAGCAACACC GAGCTGGGCA TCGTGGAGTA
 CCAGCACGCC TTCAAGACCC CGGATGCAGA TGCCGGTGAA GAAAGAGTTT AAGAATTCCG ATCATATTCA
 ATAACCCTTA ATATAACTTC GTATAATGTA TGCTATACGA AGTTATTAGG TCTGAAGAGG AGTTTACGTC
 CAGCCAAGCT TAGGATCTCG ACCTCGAAAT TCTACCGGT AGGGGAGGCG CTTTTCCAA GGCAGTCTGG
 AGCATCGCT TTAGCAGCCC CGCTGGCACT TGGCGTACA CAAGTGGCCT CTGGCCTCGC ACACATTCCA
 CATCCACGG TAGCGCAAC CGCTCCGTT CTTTGGTGGC CCCTTCGCGC CACTTCTAC TCCTCCCTA
 GTCAGGAAGT TCCCCCGC CCGCAGCTC GCGTCGTGCA GGACGTGACA AATGGAAGTA GCACGTCTCA
 CTAGTCTCGT GCAGATGGAC AGCACCGCTG AGCAATGGAA GCGGGTAGGC CTTTGGGGA GCGGCAATA
 GCAGCTTTC TCCTTCGTT TCTGGGCTCA GCAGCTGGGA AGGGTGGGTC CGGGGCGGG CTCAGGGCG
 GGCTCAGGG CGGGGCGGG GCCCGAAGGT CCTCCGGAG CCCGCGATTC TGCACGCTTC AAAAGCGCAC
 GTCTGCCGCG CTGTTCTCCT CTTCTCATC TCCGGGCTT TCGACCTGCA TCCATCTAGA TCTCGAGCAG
 CTGAAGCTTA CCATGACCGA GTACAAGCCC ACGGTGCGCC TCGCCACCCG CGACGACGTC CCCAGGGCCG
 TACGACCCCT CGCCGCCGCG TTCGCCGACT ACCCCGCCAC GCGCCACACC GTCGATCCGG ACCGCCACAT
 CGAGCGGGTC ACCGAGCTGC AAGAACTCTT CCTCACGCGC GTCGGGCTCG ACATCGCAA GGTGTGGGTC
 GCGGACGACG GCGCCGCGGT GCGGTCTGG ACCACGCGCG AGAGCGTCGA AGCGGGGCG GTGTTGCGCG
 AGATCGGCCC GCGCATGGCC GAGTTGAGCG GTTCCCGGCT GGCCGCGCAG CAACAGATGG AAGGCCTCCT
 GCGCCGCGAC CGGCCAAAG AGCCCGCGTG GTTCTGGCC ACCGTGCGCG TCTCGCCGA CCACCAGGGC
 AAGGGTCTGG GCAGCGCCGT CGTGCTCCCC GGAGTGGAGG CGGCCGAGCG CGCCGGGGTG CCCGCCTTCC
 TGGAGACCTC CGCGCCCCAC AACCTCCCT TCTACGAGCG GCTCGGCTTC ACCGTACCCG CCGACGTGCA
 GGTGCCGAA GGACCGCGCA CCTGGTGCAT GACCCGCAAG CCCGGTGCT GACGCCCGCC CCACGACCCG
 CAGCGCCCGA CCGAAAGGAG CGCACGACCC CATGCATCGA TGATATCAGA TCCCCGGAT GCAGAAATTG
 ATGATCTATT AAACAATAAA GATGTCCACT AAAATGGAAG TTTTCTCTGT CATACTTGT TAAGAAGGGT
 GAGAACAGAG TACCTACATT TTGAATGGAA GGATTGGAGC TACGGGGTG GGGGTGGGT GGGATTAGAT
 AAATGCCTGC TCTTACTGA AGGCTCTTTA CTATTGCTTT ATGATAATGT TTCATAGTTG GATATCATAA
 TTTAAACAAG CAAAACAAA TTAAGGGCCA GCTATTCTT CCCACTCATG ATCTATAGAT CTATAGATCT
 CTCGTGGGAT CATTGTTTTT CTCTTGATTC CCACTTTGTG GTTCTAAGTA CTGTGGTTTC CAAATGTGTC
 AGTTTCATAG CCTGAAGAAC GAGATCAGCA GCCTCTGTT CACATACACT TCATTCTCAG TATTGTTTTG
 CCAAGTTCTA ATTCCATCAG AAGCTGGTCG AGATCCGGAA CCCTTAATAT AACTTCGTAT AATGTATGCT
 ATACGAAGTT ATTAGTCCC TCGAAGAGGT TCACTAGGCG CGCCATTAT CTTGGGGG CTCTTCTCTA
 TTCATTTTGG AGTAGCAGCT AAAGATCAAG ATCTCAAAT AAGCCGGAG TCTGTGGAAT GTATCAGGTA
 AGAAGAGGG CTAATCTGC CAATCTCTT TCTTCTGAGT GGTGGAGAA AAGCTGCACC AAACGCAAAA
 TAATTTTTTC AAATTTTGT CTATCTTTT AAGAATAGTG ATTGATTGGT AATCATGCTG AAGCTTATTG
 CCCCACAAC CTGCCTTTT TTTCTGAAG ACTTCTTTT AAATAAAATG TCAATGATAT TAAGTAGAAA
 ATCCATGCAT GGCTGTAA AGCACCTGGT GGTCATTTG TGACCAAGTT ATCATGTTT ACCTGGCAGC
 AGTGTGCTT AATGGAAGAC TAAGTACCTA GAAGGAAAT TATTGCAGT CTTGCAAACC TGAGTAGTAA

```

AATCCCCCAT TGACCTTACA TGCTCCAATG GATAGTAATA CCTGAGTGCT GGCTGCCTCA CTCTTTTTCT
TTTTTTTCTT TCTTTTTTTT AAGGCATTTA AGTTGAAAGA AACCACAGTA GTCAGCATGA CCCAGGCATC
TTCAAACCTGT AAAAATCAGA AGGGATCTTG CTGCCGCCCG AAAGAGGAAG GGCTGGAAGA GGAAGGAGCT
TGGCGTAATC ATGGTCATAG CTGTTTCCTG TGTGAAATTG TTATCCGCTC ACAATCCAC ACAACATACG
AGCCGGAAGC ATAAAGTGTA AAGCCTGGGG TGCCTAATGA GTGAGCTAAC TCACATTAAT TGC GTTGCCG
TCACTGCCCG CTTTCCAGTC GGGAAACCTG TCGTGCCAGC TGCATTAATG AATCGGCCAA CGCGCGGGGA
GAGGCGGTTT GCGTATTGGG CGCTCTTCCG CTCCTCGCT CACTGACTCG CTGCGCTCGG TCGTTCGGCT
GCGGCGAGCG GTATCAGCTC ACTCAAAGGC GGTAATACGG TTATCCACAG AATCAGGGGA TAACGCAGGA
AAGAACATGT GAGCAAAAAG CCAGCAAAAG GCCAGGAACC GTAAAAAGGC CGCGTTGCTG GCGTTTTTCC
ATAGGCTCCG CCCCCTGAC GAGCATCACA AAAATCGACG CTCAAGTCAG AGGTGGCGAA ACCCGACAGG
ACTATAAAGA TACCAGGCGT TCCCCCTGG AAGCTCCCTC GTGCGCTCTC CTGTTCCGAC CCTGCCGCTT
ACCGGATACC TGTCCGCCTT TCTCCCTCG GGAAGCGTGG CGCTTTCTCA TAGCTCACGC TGTAGGTATC
TCAGTTCGGT GTAGGTCGTT CGCTCAAGC TGGGCTGTGT GCACGAACCC CCCGTTACG CCGACCGCTG
CGCCTTATCC GGTAACATC GTCTTGAGTC CAACCCGGTA AGACACGACT TATCGCCACT GGCAGCAGCC
ACTGGTAAAC GGATTAGCAG AGCGAGGTAT GTAGGCGGTG CTACAGAGTT CTTGAAGTGG TGGCCTAACT
ACGGCTACAC TAGAAGGACA GTATTTGGTA TCTGCGCTCT GCTGAAGCCA GTTACCTTCG GAAAAAGAGT
TGGTAGCTCT TGATCCGCA AACAAACCAC CGCTGGTAGC GGTGGTTTTT TTGTTTGCAA GCAGCAGATT
ACGCGCAGAA AAAAAGGATC TCAAGAAGAT CCTTTGATCT TTTCTACGGG GTCTGACGCT CAGTGGAACG
AAAATCAGC TTAAGGGATT TTGGTCATGA GATTATCAA AAGGATCTTC ACCTAGATCC TTTTAAATTA
AAAATGAAGT TTTAAATCAA TCTAAAGTAT ATATGAGTAA ACTTGGTCTG ACAGTTACCA ATGCTTAATC
AGTGAGGCAC CTATCTCAGC GATCTGTCTA TTTGTTTCAT CCATAGTTGC CTGACTCCCC GTCGTGTAGA
TAACTACGAT ACGGGAGGGC TTACCATCTG GCCCCAGTGC TGCAATGATA CCGCGAGACC CACGCTCACC
GGTCCAGAT TTATCAGCAA TAAACCAGCC AGCCGGAAGG GCCGAGCGCA GAAGTGGTCC TGCAACTTTA
TCCGCTCCA TCCAGTCTAT TAATTGTTGC CGGGAAGCTA GAGTAAGTAG TTCGCCAGTT AATAGTTTGC
GCAACGTTGT TGCCATTGCT ACAGGCATCG TGGTGTACG CTCGTCGTTT GGTATGGCTT CATTAGCTC
CGGTTCCCAA CGATC

```

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_000388](#), [NM_001178065](#)

UniProt ID:

[P41180](#)

Synonyms:

CAR; EIG8; FHH; FIH; GPRC2A; HHC; HHC1; HYPOC1; NSHPT; PCAR1

Summary:

The protein encoded by this gene is a plasma membrane G protein-coupled receptor that senses small changes in circulating calcium concentration. The encoded protein couples this information to intracellular signaling pathways that modify parathyroid hormone secretion or renal cation handling, and thus this protein plays an essential role in maintaining mineral ion homeostasis. Mutations in this gene are a cause of familial hypocalciuric hypercalcemia, neonatal severe hyperparathyroidism, and autosomal dominant hypocalcemia. [provided by RefSeq, Aug 2017]

Product images:

