

## Product datasheet for **KN215750LP**

### CARD15 (NOD2) 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:** CARD15  
**Locus ID:** 64127  
**Components:** **KN215750G1**, CARD15 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)  
**KN215750G2**, CARD15 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)  
**KN215750LPD**, 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 CCGCGCACAT TTCCCCGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTTCGGG TCGCGCGTTT CGGTGATGAC
GGTGAAAACC TCTGACACAT GCAGCTCCCG TTGACGGTCA CAGCTTGTCT GTAAGCGGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTCGC GTTAAATTTT
TGTTAAATCA GCTCATTITT TAACCAATAG GCCGAAATCG GCAAAATCCC TTATAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCACTA CGTGAACCAT CACCAAATC AAGTTTTTTG
GGGTCGAGGT GCCGTAAGC ACTAAATCGG AACCTAAAG GGAGCCCCCG ATTTAGAGT TGACGGGGAA
AGCCGGCGAA CGTGCCGAGA 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
AAAGGGGGAT GTGCTGCAAG GCGATTAAGT TGGGTAACGC CAGGGTTTTT CCAGTCACGA CGTTGTAATA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACAGG CTGTCGCGCT GCTCATTGTA
TAACTGCCG TTATTCATGC GACACGAGAA CAGCACTAAG GCCAGGTTCT CCTCCCCAGA TGTTTAAGAT
GAGACAGGAC AATGCCTGCT CAGAGACAGG GCCTGGCTGA ATTGGCCCTC AGGATTCTCT CTGCTCTGAG
```



GTTCTGAA GAAGCCAG GCAGAGGTG GGTGATGTAG CTGCTGGAG GACAGAGCTC CGAGTCACGT  
 GGCTTGGCG GGCCTCCCT TCCTGGTGC CACAGAAGCC CAACGTCACT AGCTGGGGTG TGTATGGCTC  
 ACACGTAGGC CAGGCTGCC TAGGCTTGGT GTGCAAGGGA GGGGCCCTA CTTACTTGTG GCCTGTCCCC  
 TCGTGAATGT GTCTCATGTC CCCAGTGGGG TTTTTCAGTG AGGGTCATGG TCTCCAGGAT GCACAAGGCT  
 TTGTGCCAGA ATTGCTTGA ATTGCCTAGT TCTGGAAGGC TGGTTGGCCA ACTCTGGCCT CCGCTTTTC  
 CTTTGGGAAT TTCCCTTGA GGTGGGTTG GTAGACAGAT CCAGGCTCAC CAGTCTGTG CCACTGGCT  
 TTTGGCTTC TGCACAAGC CTACCCGAG ATGCCATGCC TGCTCCCCA GCCTAATGGG CTTTACTAG  
 CATGGAAGAC GCCAAAAACA TAAAGAAAG CCCAGCGCCA TTCTACCCAC TCGAAGACGG GACCCCGGC  
 GAGCAGCTGC ACAAAGCCAT GAAGCGTAC GCCCTGGTGC CCGGCACCAT CGCCTTACC GACGCACATA  
 TCGAGGTGA CATTACCTAC GCCGAGTACT TCGAGATGAG CGTTTCGGTG GCAGAAGCTA TGAAGCGCTA  
 TGGGCTGAAT ACAAACCATC GGATCGTGGT GTGCAGCGAG AATAGCTTGC AGTTCTTCAT GCCCGTGTG  
 GGTGCCCTGT TCATCGGTGT GGCTGTGGCC CCAGCTAACG ACATCTACAA CGAGCGCGAG CTGCTGAACA  
 GCATGGGCAT CAGCCAGCCC ACCGTCGTAT TCGTGAGCAA GAAAGGGCTG CAAAAGATCC TCAACGTGCA  
 AAAGAAGCTA CCGATCATA AAAAGATCAT CATCATGGAT AGCAAGACCG ACTACCAGG CTTCCAAGC  
 ATGTACACCT TCGTGACTTC CCATTTGCCA CCCGGCTTCA ACGAGTACGA CTTCTGTCCC GAGAGTTCG  
 ACCGGGACAA AACCATCGCC CTGATCATGA ACAGTAGTGG CAGTACCGGA TTGCCAAGG GCGTAGCCCT  
 ACCGCACCGC ACCGCTTGTG TCCGATTGAG TCATGCCCGC GACCCCATCT TCGGCAACCA GATCATCCCC  
 GACACCGCTA TCCTCAGCGT GGTGCCATTT CACCACGGCT TCGGCATGTT CACCACGCTG GGCTACTTGA  
 TCTGCGGCTT TCGGGTCGTG CTCATGTACC GCTTCGAGGA GGAGCTATTC TTGCGCAGCT TGCAAGACTA  
 TAAGATCAA TCTGCCCTGC TGGTGCCAC ACTATTTAGC TTCTTCGCTA AGAGCACTCT CATCGACAAG  
 TACGACCTAA GCAACTTGCA CGAGATCGCC AGCGCGGGG CGCCGCTCAG CAAGGAGGTA GGTGAGGCCG  
 TGGCCAAACG CTTCCACCTA CCAGGCATCC GCCAGGGCTA CGCCCTGACA GAAACAACCA GCGCCATTCT  
 GATCACCCCC GAAGGGGACG ACAAGCCTGG CGCAGTAGGC AAGGTGGTGC CCTTCTCGA GGCTAAGGTG  
 GTGGACTTGG ACACCGTAA GACACTGGGT GTGAACCAGC GCGGCGAGCT GTGCGTCCGT GGCCCATGA  
 TCATGAGCGG CTACGTTAAC AACCCGAGG CTACAAACGC TCTCATCGAC AAGGACGGCT GGCTGCACAG  
 CGGCGACATC GCCTACTGGG ACGAGGACGA GCACTTCTTC ATCGTGGACC GGCTGAAGAG CCTGATCAAA  
 TACAAGGGCT ACCAGGTAGC CCCAGCCGAA CTGGAGAGCA TCCTGCTGCA ACACCCCAAC ATCTTCGACG  
 CCGGGTTCGC CGCCTGCCG GACGACGATG CCGGCGAGCT GCCCGCCGCA GTCGTGTCG TGGAACACGG  
 TAAAACCATG ACCGAGAAGG AGATCGTGA CTATGTGGCC AGCCAGGTTA CAACCGCAA GAAGCTGCGC  
 GGTGGTGTG TGTTCTGGA CGAGGTGCCT AAAGACTGA CCGCAAGTT GGACGCCGC AAGATCCGCG  
 AGATTCTCAT TAAGCCAAG AAGGGCGAA AGATCGCCGT GTAAGAATTC CGATCATATT CAATAACCCT  
 TAATATAACT TCGTATAATG TATGCTATAC GAAGTTATTA GGTCTGAAGA GGAGTTTACG TCCAGCCAAG  
 CTTAGGATCT CGACCTCGAA ATTCTACCGG GTAGGGGAGG CGCTTTTCCC AAGGCAGTCT GGAGCATGCG  
 CTTTAGCAGC CCCGCTGGGC ACTTGGCGCT ACACAAGTGG CCTCTGGCCT CGCACACATT CCACATCCAC  
 CGGTAGGCGC CAACCGACTC CGTTCTTTGG TGGCCCCCTC GCGCCACCTT CTACTCTCC CCTAGTCAGG  
 AAGTTCCCCC CGCCCCGCA GCTCGCGTCG TGCAGGACGT GACAAATGGA AGTAGCACGT CTCCTAGTC  
 TCGTGCAGAT GGACAGCACC GCTGAGCAAT GGAAGCGGT AGGCCTTTGG GGCAGCGGC AATAGCAGT  
 TTGCTCCTTC GCTTTCTGG CTCAGAGGT GGAAGGGGT GGTCCGGGG GCGGGCTCAG GGGCGGGCTC  
 AGGGCGGGG CGGGCGCCG AAGTCTCC CGAGGCCCG CATTCTGCAC GCTTCAAAAG CGCACGTCTG  
 CCGCGCTGTT TCCTCTTCC TCATCTCCG GCCTTTGAC CTGCATCCAT CTAGATCTCG AGCAGCTGAA  
 GCTTACCATG ACCGAGTACA AGCCACGGT GCGCCTCGCC ACCCGCGACG ACGTCCCAG GGCCGTACGC  
 ACCCTCGCG CCGGTTTCG CACTACCCC GCCACGCGCC ACACCGTCGA TCCGGACCG CACATCGAGC  
 GGGTACCGA GCTGCAAGAA CTCTCTCA CGCGCTCGG GCTCGACATC GGCAAGGTG GGGTCGCGGA  
 CGACGGCGCC GCGGTGGCG TCTGGACCAC GCCGGAGAGC GTCGAAGCG GGGCGGTGT CGCCGAGATC  
 GGCCCGGCA TGCCGAGTT GAGCGTTCC CGGCTGGCC CGCAGCAACA GATGGAAGG CTCCTGGCGC  
 CGCACCGCC CAAGGAGCCC GCGTGGTTCC TGCCACCGT CGCGTCTCG CCCGACCACC AGGGCAAGGG  
 TCTGGGCAGC GCCGTCGTG TCCCGGAGT GGAGCGGCC GAGCGCGCG GGTGCCCGC CTTCTGGAG  
 ACCTCCGCG CCCACAACCT CCCCTTAC GAGCGGCTCG GCTTACCGT CACCGCCGAC GTCGAGGTG  
 CCGAAGGACC GCGCACCTG TGCATGACCC GCAAGCCCG TGCTGACGC CCGCCCCACG ACCCGCAGCG  
 CCCGACCGAA AGGAGCGCAC GACCCATGC ATCGATGATA TCAGATCCCC GGGATGCAGA AATTGATGAT  
 CTATTAACA ATAAAGATGT CCACTAAAT GGAAGTTTT CTTGTCATAC TTTGTTAAGA AGGGTGAGAA  
 CAGAGTACCT ACATTTTGA TGAAGGATT GGAGTACGG GGGTGGGGT GGGTGGGAT TAGATAAATG

```

CCTGCTCTTT ACTGAAGGCT CTTTACTATT GCTTTATGAT AATGTTTCAT AGTTGGATAT CATAATTTAA
ACAAGCAAAA CCAAATTAAG GGCCAGCTCA TTCCTCCAC TCATGATCTA TAGATCTATA GATCTCTCGT
GGGATCATTG TTTTCTCTT GATTCCCACT TTGTGGTTCT AAGTACTGTG GTTTCCAAAT GTGTCAGTTT
CATAGCCTGA AGAACGAGAT CAGCAGCCTC TGTTCCACAT ACAC TTCATT CTCAGTATTG TTTTGCCAAG
TTCTAATTCC ATCAGAAGCT GGTGCGAGAT CGGAACCCTT AATATAACTT CGTATAATGT ATGCTATACG
AAGTTATTAG GTCCTCGAA GAGGTTCACT AGGCGCGCCG CTGACTCTGT TTCTGGGCTG TTTTCTGGGG
AGAATGGGTC GGCGGGTTTT TTTCCCAAG ACCTGGGCAG GGTCAATGGT GGGGGCCGTG GTCGCATCCT
TGCTGGTGT TTCCACAGCT GAGAACCCT CCAGGGCCAA GCCCAGAGCT TATTCTACCC TTTTGTGCTC
TCTCTTCCCC TGTCTCGGC CACCCACCC TCTTGGCTCC TCTGCTTAGA TGTGGGCACA AGGAGGAGAA
CTCCTTGCC TGAGAGAACT ACCTTAGATC CTGGCTTCCA GTGGCCTCTG CAGGGGGGTA CACCCTCTCT
CCCAAGCAGC CAGACACACA AGTAACCTCA TTGCCTCAGT TTCCCATCT GACCAGCACA GGGCCCCCTG
TGCCCCAGCA GCGTTCTGAG AGATTGGAGC TTTCTCCTT TGCTTACCTT GGCTACCCTA TGAGGACGGA
TACAGAGTGT TCCCCCACC CCCAGCCAG GGGATATTTG ATTCATGAAC ATTCCCTCAG TGTCTTTGTG
GGGACAATG CTGTGCCAGG CTCAGGGATG CCAGGACGAG TAAGACCCAG GCTCCCAGT GGGCCAGGCA
GGGAGAGAGT CACTCTGCC GGTACTTTA GATCAGAAGG GATCTTGCTG CCGCCCGAAA GAGGAAGGGC
TGGAAGAGGA AGGAGCTTGG CGTAATCATG GTCATAGCTG TTTCTGTGT GAAATGTGA TCCGCTCACA
ATTCCACACA ACATACGAGC CGGAAGCATA AAGTGTAAAG CCTGGGGTGC CTAATGAGTG AGCTAACTCA
CATTAAATGC GTTGCCTCA CTGCCCGCTT TCCAGTCGGG AAACCTGTCG TGCCAGCTGC ATTAATGAAT
CGGCCAACGC GCGGGGAGAG GCGGTTTGGC TATTGGGCGC TCTTCCGCTT CCTCGCTCAC TGACTCGCTG
CGCTCGGTG TTCGGCTGCG GCGAGCGGTA TCAGTCACT CAAAGGCGGT AATACGGTGA TCCACAGAAT
CAGGGGATAA CGCAGGAAAG AACATGTGAG CAAAAGGCCA GCAAAGGCC AGGAACCGTA AAAAGGCCGC
GTTGCTGGCG TTTTCCATA GGCTCCGCC CCCTGACGAG CATCACAAA ATCGACGCTC AAGTCAGAGG
TGGCGAAACC CGACAGGACT ATAAAGATAC CAGGCGTTTC CCCCTGGAAG CTCCTCGTG CGCTCTCCTG
TTCCGACCCT GCCGCTTACC GGATACCTGT CCGCCTTCT CCCTTCGGGA AGCGTGGCGC TTTCTCATAG
CTCACGCTGT AGGTATCTCA GTTCGGTGTG GGTGCTTCCG TCCAAGCTGG GCTGTGTGCA CGAACCCCC
GTTCAGCCG ACCGCTGCGC CTTATCCGGT AACTATCGTC TTGAGTCCAA CCCGGTAAGA CACGACTTAT
CGCCACTGGC AGCAGCCACT GGTAACAGGA TTAGCAGAGC GAGGTATGTA GGCGGTGCTA CAGAGTTCTT
GAAGTGGTGG CTTAACTACG GCTACACTAG AAGAACAGTA TTTGGTATCT GCGCTCTGCT GAAGCCAGTT
ACCTTCGGAA AAAGAGTTGG TAGCTCTTGA TCCGGCAAAC AAACCACCGC TGGTAGCGGT GGTTTTTTTG
TTTGAAGCA GCAGATTACG CGCAGAAAAA AAGGATCTCA AGAAGATCCT TTGATCTTTT CTACGGGGTC
TGACGCTCAG TGGAACGAAA ACTCACGTTA AGGGATTTTG GTCATGAGAT TATCAAAAAG GATCTTCACC
TAGATCCTTT TAAATTAATA ATGAAGTTTT AAATCAATCT AAAGTATATA TGAGTAAACT TGGTCTGACA
GTTACCAATG CTTAATCAGT GAGGCACCTA TCTCAGCGAT CTGTCTATTT CGTTCATCCA TAGTTGCTG
ACTCCCCGTC GTGTAGATAA CTACGATACG GGAGGGCTTA CCATCTGGCC CCAGTGTGCT AATGATACCG
CGAGAACCAC GCTCACCAGG TCCAGATTTA TCAGCAATA ACCAGCCAGC CGGAAGGGCC GAGCGCAGAA
GTGGTCTGTC AACTTTATCC GCCTCCATCC AGTCTATTAA TTGTTGCCG GAAGCTAGAG TAAGTAGTTC
GCCAGTTAAT AGTTTGCACA ACGTTGTTGC CATTGCTACA GGCATCGTGG TGTCACGCTC GTCGTTTGGT
ATGGCTTCAT TCAGCTCCGG TTCCCAACGA TC

```

**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\\_001293557](#), [NM\\_022162](#), [NM\\_001370466](#), [NR\\_163434](#)

**UniProt ID:**

[Q9HC29](#)

**Synonyms:**

ACUG; BLAU; CARD15; CD; CLR16.3; IBD1; NLRC2; NOD2B; PSORAS1

**Summary:**

This gene is a member of the Nod1/Apaf-1 family and encodes a protein with two caspase recruitment (CARD) domains and six leucine-rich repeats (LRRs). The protein is primarily expressed in the peripheral blood leukocytes. It plays a role in the immune response to intracellular bacterial lipopolysaccharides (LPS) by recognizing the muramyl dipeptide (MDP) derived from them and activating the NFκB protein. Mutations in this gene have been associated with Crohn disease and Blau syndrome. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jun 2014]

**Product images:**
