

## Product datasheet for **KN215381RB**

### Neurexin 1 (NRXN1) Human Gene Knockout Kit (CRISPR)

#### Product data:

**Product Type:** Knockout Kits (CRISPR)

**Format:** 2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control

**Donor DNA:** RFP-BSD

**Symbol:** Neurexin 1

**Locus ID:** 9378

**Components:** **KN215381G1**, Neurexin 1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GACGGCGCTGCTCCAGCGCG  
**KN215381G2**, Neurexin 1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GTGCCTCTCGCTGCTGCTCC  
**KN215381RBD**, donor DNA containing left and right homologous arms and RFP-BSD functional cassette.  
 Homologous arm and RFP-BSD sequences:  
 pUC vector backbone in gray; **Left arm sequence in blue**; **RFP-BSD in green**; **Right arm in violet**

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AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAAGCG GTTAGCTCCT TCGGTCCTCC GATCGTTGTC
AGAAGTAAGT TGGCCGCAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTG TGAGAATAGT GTATGCCGGC
ACCGAGTTGC TCTTGCCCGG CGTCAATACG GGATAATACC GCGCCACATA GCAGAATTTT AAAAGTGCTC
ATCATTTGAA AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCGCT GTTGAGATCC AGTTTCGATG
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCAGC GTTTCTGGGT GAGCAAAAAC
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TTTCAATATT ATTGAAGCAT TTATCAGGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
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TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGGG TCGCGGTTT CGGTGATGAC
GGTAAAACC TCTGACACAT GCAGCTCCCG TTGACGGTCA CAGCTTGCT GTAAAGCGGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTGCG GTTAAATTTT
TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG GCAAAATCCC TTATAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT CACCAAATC AAGTTTTTTG
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AGCGGTACG CTGCGGTAA CCACCACACC CGCCGCGCTT AATGCGCCGC TACAGGGCGC GACTATGGT
TGTTTTGACG TATGCGGTGT GAAATACCGC ACAGATCGCT AAGGAGAAAA TACCGCATCA GGCGCCATC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGTATTACG CCAGCTGGCG
AAAGGGGAT GTGCTGCAAG GCGATTAAGT TGGGTAACGC CAGGGTTTTT CCAGTACGA CGTTGTAATA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACAGG CTGTCGCCGT GCTCATTTGA
  
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TAACTGCCCG TTATTCATGC GACACGCCCT AAAGAGGCAA GCATCCCTTT CTCCGTTCTG CTGTAAGACA  
 CCACATCTGA AGGAGACAGA CTTGAGGCAT TCACAAGCAT CCAAGGATAC TGGCTCACTG CTGGCTTCCT  
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 TGGGGTGCCCT AATGAGTGAG CTAACTCACA TTAATTGCGT TGCCTCACT GCCCGCTTTC CAGTCGGGAA  
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 TCACAAAAAT CGACGCTCAA GTCAGAGGTG GCGAAACCCG ACAGGACTAT AAAGATACCA GGCGTTTCCC  
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 TGGTATCTGC GCTCTGCTGA AGCCAGTTAC CTTCCGAAAA AGAGTTGGTA GCTCTTGATC CGGCAAACAA  
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 CAGCCAGCCG GAAGGGCCGA GCGCAGAAGT GGTCTGCAA CTTTATCCGC CTCCATCCAG TCTATTAATT  
 GTTGCCGGGA AGCTAGAGTA AGTAGTTCGC CAGTTAATAG TTTGCGCAAC GTTGTGCCA TTGCTACAGG  
 CATCGTGTG TCACGCTCGT CGTTTGTGAT GGCTTCATTC AGCTCCGTT 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\\_001135659](#), [NM\\_001320156](#), [NM\\_001320157](#), [NM\\_001330077](#), [NM\\_001330078](#), [NM\\_001330079](#), [NM\\_001330081](#), [NM\\_001330082](#), [NM\\_001330083](#), [NM\\_001330084](#), [NM\\_001330085](#), [NM\\_001330086](#), [NM\\_001330087](#), [NM\\_001330088](#), [NM\\_001330089](#), [NM\\_001330090](#), [NM\\_001330091](#), [NM\\_001330092](#), [NM\\_001330093](#), [NM\\_001330094](#), [NM\\_001330095](#), [NM\\_001330096](#), [NM\\_001330097](#), [NM\\_004801](#), [NM\\_138735](#)

**UniProt ID:** [Q9ULB1](#)

**Synonyms:** Hs.22998; PTHSL2; SCZD17

**Summary:** This gene encodes a single-pass type I membrane protein that belongs to the neurexin family. Neurexins are cell-surface receptors that bind neuroligins to form Ca<sup>2+</sup>-dependent neurexin/neuroligin complexes at synapses in the central nervous system. This complex is required for efficient neurotransmission and is involved in the formation of synaptic contacts. Three members of this gene family have been studied in detail and are estimated to generate over 3,000 variants through the use of two alternative promoters (alpha and beta) and extensive alternative splicing in each family member. Recently, a third promoter (gamma) was identified for this gene in the 3' region. Mutations in this gene are associated with Pitt-Hopkins-like syndrome-2 and may contribute to susceptibility to schizophrenia. [provided by RefSeq, Aug 2016]

### Product images:

