

Product datasheet for **KN200605**

HDAC3 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: HDAC3
Locus ID: 8841
Components: **KN200605G1**, HDAC3 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTATTTCTACGACCCCGACG
KN200605G2, HDAC3 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGGCAACTTCCACTACGGTG
KN200605D, 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**

```
GATCGTTGGG AACCGGAGCT GAATGAAGCC ATACCAAACG ACGAGCGTGA CACCACGATG CCTGTAGCAA
TGGCAACAAC GTTGCGCAA CTATTAACCTG GCGAACTACT TACTCTAGCT TCCC GGCAAC AATTAATAGA
CTGGATGGAG GCGGATAAAG TTGCAGGACC ACTTCTGCGC TCGGCCCTTC CGGCTGGCTG GTTTATTGCT
GATAAATCTG GAGCCGGTGA GCGTGGTTCT CGCGGTATCA TTGCAGCACT GGGGCCAGAT GGTAAGCCCT
CCCGTATCGT AGTTATCTAC ACGACGGGGA GTCAGGCAAC TATGGATGAA CGAAATAGAC AGATCGCTGA
GATAGGTGCC TCACTGATTA AGCATTGGTA ACTGTCAGAC CAAGTTTACT CATATATACT TTAGATTGAT
TTAAAACCTC ATTTTAAATT TAAAAGGATC TAGGTGAAGA TCCTTTTTGA TAATCTCATG ACCAAAATCC
CTTAACGTGA GTTTTCGTTC CACTGAGCGT CAGACCCCGT AGAAAAGATC AAAGGATCTT CTTGAGATCC
TTTTTTCTG CGCGTAATCT GCTGCTTGCA AACAAAAAAA CCACCGCTAC CAGCGGTGGT TTGTTTGCCG
GATCAAGAGC TACCAACTCT TTTTCCGAAG GTAAGTGGCT TCAGCAGAGC GCAGATACCA AATACTGTTC
TTCTAGTGTA GCCGTAGTTA GGCCACCACT TCAAGAACTC TGTAGCACCG CCTACATACC TCGCTCTGCT
AATCCTGTTA CCAGTGGCTG CTGCCAGTGG CGATAAGTCG TGTCTTACCG GGTGGACTC AAGACGATAG
TTACCGGATA AGGCGCAGCG GTCGGGCTGA ACGGGGGGTT CGTGACACACA GCCCAGCTTG GAGCGAACGA
CCTACACCGA ACTGAGATAC CTACAGCGTG AGCTATGAGA AAGCGCCACG CTTC CGGAAG GGAGAAAGGC
GGACAGGTAT CCGGTAAGCG GCAGGGTCCG AACAGGAGAG CGCACGAGGG AGCTTCCAGG GGGAAACGCC
TGGTATCTTT ATAGTCCTGT CGGGTTTCGC CACCTCTGAC TTGAGCGTCG ATTTTGTGA TGCTCGTCAG
GGGGGCGGAG CCTATGGAAA AACGCCAGCA ACGCGGCCTT TTTACGGTTC CTGGCCTTTT GCTGGCCTTT
TGCTCACATG TTCTTCTCTG CGTTATCCCC TGATTCTGTG GATAACCGTA TTACCGCCTT TGAGTGAGCT
GATACCGCTC GCCGCAGCCG AACGACCGAG CGCAGCGAGT CAGTGAGCGA GGAAGCGGAA GAGCGCCCAA
TACGCAAACC GCCTCTCCCC GCGCGTTGGC CGATTTCATTA ATGCAGCTGG CACGACAGGT TTCCCAGCTG
GAAAGCGGGC AGTGAGCGCA ACGCAATTAA TGTGAGTTAG CTCACTCATT AGGCACCCCA GGCTTTACAC
TTTATGCTTC CGGCTCGTAT GTTGTGTGGA ATTGTGAGCG GATAACAATT TCACACAGGA AACAGCTATG
ACCATGATTA CGCCAAGCTC CTTCTCTTTC CAGCCCTTCC TCTTCTACTG ACTGACTGAT TGCGTCTCAA
```



CCTAGCTCTG CGCGCGCTG ACTGCGCCGG GCCCCCCGG GGCAATGTGC GGCGCCGAGT CTGGGTCCGG
 GTAGGGGACA GGCGGTCCGG CGTGGGTGTT GTCCACTGGT CTATCCGGTA CGCCTGGCGC AGCTCCTGCC
 CTCAGATGCC CCGACCGAGC GGAGAGTCAG GAATCTTCTC CGAGGGCTGG GGAAGCCGG CTTTCCGCAC
 CTTTGAGGGA CGGAGTGGCG GGATCTTCGG AGCTTCTAG AGAAGTGACC ACGGCCTGCG CCCGGTTTGG
 GGCAAGCGGC TGGATGGGAT GGCTCGGCTT CCCGAGGATC TGACCCCCGG CCGGAGACAA ATGGCCCTCG
 CATCTAGGA GCTATGCTGC CAGTTCCTG CCCAACCCGG GAGCTCAA GCCCAGATA CCGGGAGAGC
 TGAGCCGGGC GAGGGCCGGA GCTCCCCTGG GGGCGTGGCC TGGGTGTGGA TGGAGGCGGG GCCCAACGC
 CCAGTTCCGC AGAGGCCGGC TACGTGCTTG CGCAGCACGC ACGGCCGGGG AGGGGCTGGC GGCGGCCGGC
 GGCGGCGGGC GGCGGAGGTG CCGGGCCTGC TCCCGCCGG ACCACTAGCA TGGAGAGCGA CGAGAGCGGC
 CTGCCCGCCA TGGAGATCGA GTGCCGCATC ACCGGCACCC TGAACGGCGT GGAGTTCGAG CTGGTGGGCG
 GCGGAGAGGG CACCCCGAG CAGGGCCGCA TGACCAACA GATGAAGAGC ACCAAAGGCG CCCTGACCTT
 CAGCCCCTAC CTGCTGAGCC ACGTGATGGG CTACGGCTTC TACCACTTCG GCACCTACCC CAGCGGCTAC
 GAGAACCCCT TCCTGCACGC CATCAACAAC GGCGGTACA CCAACACCCG CATCGAGAAG TACGAGGACG
 GCGGCGTGCT GCACGTGAGC TTCAGCTACC GCTACGAGGC CGGCCGCGTG ATCGGCGACT TCAAGGTGAT
 GGGCACCGGC TTCCCGAGG ACAGCGTGAT CTTACCCGAC AAGATCATCC GCAGCAACGC CACCGTGGAG
 CACCTGCACC CCATGGGCGA TAACGATCTG GATGGCAGCT TCACCCGCAC CTTCAGCCTG CGCGACGGCG
 GCTACTACAG CTCCGTGGTG GACAGCCACA TGCACTTCAA GAGCGCCATC CACCCAGCA TCCTGCAGAA
 CGGGGGCCCC ATGTTCCGCT TCCGCCGCGT GGAGGAGGAT CACAGCAACA CCGAGCTGGG CATCGTGGAG
 TACCAGCACG CCTTCAAGAC CCCGGATGCA GATGCCGGTG AAGAAAGAGT TTAAGAATTC CGATCATATT
 CAATAACCT TAATATACT TCGTATAATG TATGCTATAC GAAGTTATTA GGTCTGAAGA GGAGTTTACG
 TCCAGCCAAG CTTAGGATCT CGACCTCGAA ATTCTACCGG GTAGGGGAGG CGTTTTTCCC AAGGCAGTCT
 GGAGCATCGC CTTTAGCAGC CCCGTGGGC ACTTGGCGCT ACACAAGTGG CCTCTGGCCT CGCACACATT
 CCACATCCAC CGGTAGGCGC CAACCGACTC CGTTCTTTGG TGGCCCTTC GACCCACCTT CTACTCCTCC
 CCTAGTCAGG AAGTTCCTCC CGCCCCGCA GCTCGCGTCG TGCAGGACGT GCAAAAATGGA AGTAGCACGT
 CTAAGTAGTC TCGTGCAGAT GGACAGCACC GCTGAGCAAT GGAAGCGGGT AGGCCTTTGG GGCAGCGGCC
 AATAGCAGCT TTGCTCCTTC GCTTTCTGGG CTCAGAGGCT GGAAGGGGT GGGTCCGGGG GCGGGCTCAG
 GGGCGGGCTC AGGGGCGGGG CGGGCGCCG AAGGTCTCC GGAGGCCCGG CATTCTGCAC GCTTCAAAAG
 CGCACGTCTG CCGCGCTGTT CTCCTCTTCC TCATCTCCGG GCCTTTCGAC CTGCATCCAT CTAGATCTCG
 AGCAGCTGAA GCTTACCATG ACCGAGTACA AGCCACGGT GCGCCTCGCC ACCCGCAGC ACGTCCCCAG
 GGGCGTACG ACCCTCGCG CCGCGTTCG CACTACCC GCCACGCGCC ACACCGTGA TCCGGACCGC
 CACATCGAGC GGGTCACCGA GCTGCAAGAA CTCTTCTCA CGCGCGTCGG GCTCGACATC GGCAAGGTGT
 GGGTCGCGGA CGACGGCGCC GCGGTGGCGG TCTGACCAC GCCGGAGAGC GTCGAAGCGG GGGCGGTGTT
 CGCCGAGATC GGCCCGCGCA TGGCCGAGTT GAGCGGTTCC CGGCTGGCCG CGCAGCAACA GATGGAAGGC
 CTCTGGCGC CGCACCGGCC CAAGGAGCCC GCGTGGTTCC TGGCCACCGT CGGCGTCTCG CCCGACCACC
 AGGGCAAGGG TCTGGGCAGC GCCGTCGTGC TCCCGGAGT GGAGGCCGGC GAGCGCGCCG GGGTGGCCGC
 CTTCTGGAG ACCTCCGCGC CCCACAACCT CCCCTTCTAC GAGCGGCTCG GCTTACCGT CACCGCCGAC
 GTCGAGGTGC CCGAAGGACC GCGCACCTGG TGCATGACC GCAAGCCCGG TGCCTGACGC CCGCCCCAG
 ACCCGCAGC CCCGACCGAA AGGAGCGCAC GACCCCATGC ATCGATGATA TCAGATCCCC GGGATGCAGA
 AATTGATGAT CTATTAACA ATAAAGATGT CCACTAAAAT GGAAGTTTTT CCTGTACAT TTTGTTAAGA
 AGGGTGAGAA CAGAGTACCT ACATTTTGAA TGAAGGATT GGAGCTACGG GGGTGGGGT GGGGTGGGAT
 TAGATAAATG CCTGCTCTTT ACTGAAGGCT CTTTACTATT GCTTTATGAT AATGTTTCAT AGTTGGATAT
 CATAATTTAA ACAAGCAAAA CCAAATTAAG GGCCAGCTCA TTCCTCCAC TCATGATCTA TAGATCTATA
 GATCTCTCGT GGGATCATTG TTTTCTCTT GATTCCACT TTGTGGTTCT AAGTACTGTG GTTTCCAAAT
 GTGTCACTT CATAGCCTGA AGAACGAGAT CAGCAGCTC TGTTCCACAT ACACTTCATT CTCAGTATTG
 TTTTGCCAAG TTCTAATTCC ATCAGAAGCT GGTCGAGATC CGGAACCCTT AATATAACTT CGTATAATGT
 ATGCTATACG AAGTTATTAG GTCCTCGAA GAGGTTCACT AGGCGCGCCA **CTCCAGGGT GAGAGCTGAC**
GAAGTCTT CTCCCACC CCAGGAGCT GACACCCTAT GAAGCCCAT CGCCTGGCAT TGACCCATAG
CCTGGTCCCTG CATTACGGTC TCTATAAGAA GATGATCGTG AGTTCCCGC CCTCGGCCG GGGTTGGGGG
GTGGGGCGAG CTGTGGCCGT AGGGATAGGT GGGCTGGACT GAGTGCATGA AGTGCAGCC GCCCCTAGAG
TATCGGGGAG CTGGATAGAA GTCACCAGGA GTACCTTCAA AGTGCAGGG GTTGGGGGTG GCGTCTCTG
CTTAATGGAA AGTACTTCT CACCTCAGG CGGCCACCT CTGACTGTAG GCACACTAGC CCTTGGCCTA
GGTTAGCGT GATGTGGGG TGGTTGAAG ACAGAAGGTG TGTTCTCTCT CTGCATTTTA GAGTGTGGAT

```

AGGGCCTTGG CCTCAGGAAT TAGGGTTAGG GGAGCGGATA TCACTGTATC AGGGTGTGAG GTTTACCCTC
AGTTCCCACT CCTCTTTTAC CACCTTTCTT TACCTCCAAG GAGCTAGGGC TCCAGGGTGG AACGATGCTG
CCGTCTTTGT AAATGTGTA CGAAGAGACG ACTGACTGAC TGACTGGAAA GTCCTCTCCA CTGACTGTAG
CCTCCAATTC ACTGGCCGTC GTTTTACAAC GTCGTGACTG GGAAAACCCT GGC GTTACCC AACTTAATCG
CCTTGACGCA CATCCCCCTT TCGCCAGCTG GCGTAATAGC GAAGAGGCC GCACCGATCG CCCTTCCCAA
CAGTTGCGCA GCCTGAATGG CGAATGGCGC CTGATGCGGT ATTTTCTCCT TACGCATCTG TCGCGTATT
CACACCGCAT ACGTCAAAGC AACCATAGTA CGCGCCCTGT AGCGGGCGCAT TAAGCGCGG GGGTGTGGTG
GTTACGCGCA GCGTGACCGC TACACTTGCC AGCGCCCTAG CGCCCGCTCC TTTCGCTTTC TTCCCTTCTC
TTCTCGCCAC GTTCGCCGGC TTTCCCGCTC AAGCTCTAAA TCGGGGGCTC CCTTTAGGGT TCCGATTTAG
TGCTTTACGG CACCTCGACC CCAAAAAACT TGATTTGGGT GATGGTTCAC GTAGTGGGCC ATCGCCCTGA
TAGACGGTTT TTCGCCCTTT GACGTTGGAG TCCACGTTCT TTAATAGTGG ACTCTTGTTT CAAACTGGAA
CAACACTCAA CCCTATCTCG GGCTATTCTT TTGATTTATA AGGGATTTTG CCGATTTCCG CCTATTGGTT
AAAAAATGAG CTGATTTAAC AAAAAATTA CGCGAATTTT AACAAAATAT TAACGTTTAC AATTTTATGG
TGACTCTCA GTACAATCTG CTCTGATGCC GCATAGTTAA GCCAGCCCG ACACCCGCCA ACACCCGCTG
ACGCGCCCTG ACGGGCTTGT CTGCTCCCG CATCCGCTTA CAGACAAGCT GTGACCGTCA ACGGGAGCTG
CATGTGTACAG AGGTTTTTAC CGTCATCACC GAAACGCGCG ACCCGAAAAG GCCTCGTGAT ACGCCTATTT
TTATAGGTTA ATGTCATGAT AATAATGGTT TCTTAGACGT CAGGTGGCAC TTTTCGGGGA AATGTGCGCG
GAACCCCTAT TTGTTTATTT TTCTAAATAC ATTCAAATAT GTATCCGCTC ATGAGACAAT AACCCCTGATA
AATGCTTCAA TAATATTGAA AAAGGAAGAG TATGAGTATT CAACATTTCC GTGTCGCCCT TATTCCCTTT
TTTGCGGCAT TTTGCCTTCC TGTTTTTGT CACCCAGAAA CGCTGGTGAA AGTAAAAGAT GCTGAAGATC
AGTTGGGTGC ACGAGTGGGT TACATCGAAC TGGATCTCAA CAGCGGTAAG ATCCTTGAGA GTTTTCGCCC
CGAAGAACGT TTTCCAATGA TGAGCACTTT TAAAGTTCTG CTATGTGGCG CGGTATTATC CCGTATTGAC
GCCGGGCAAG AGCAACTCGG TCGCCGCATA CACTATTCTC AGAATGACTT GGTGAGTAC TCACCAGTCA
CAGAAAAGCA TCTTACGGAT GGCATGACAG TAAGAGAATT ATGCAGTGCT GCCATAACCA TGAGTGATAA
CACTGCGGCC AACTTACTTC TGACAACGAT CGGAGGACCG AAGGAGCTAA CCGCTTTTTT GCACAACATG
GGGGATCATG TAACTCGCCT T

```

GE100003, scramble sequence in pCas-Guide vector

RefSeq: [NM_003883](#), [NM_001355039](#), [NM_001355040](#), [NM_001355041](#), [NR_149164](#), [NR_149165](#), [NR_149166](#), [NR_149167](#), [NR_149168](#), [NR_149169](#)

UniProt ID: [O15379](#)

Synonyms: HD3; RPD3; RPD3-2

Summary: Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. The protein encoded by this gene belongs to the histone deacetylase/acuc/apha family. It has histone deacetylase activity and represses transcription when tethered to a promoter. It may participate in the regulation of transcription through its binding with the zinc-finger transcription factor YY1. This protein can also down-regulate p53 function and thus modulate cell growth and apoptosis. This gene is regarded as a potential tumor suppressor gene. [provided by RefSeq, Jul 2008]

Product images:

