

## Product datasheet for **KN210426**

### NOX1 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:	NOX1
Locus ID:	27035
Components:	<p><b>KN210426G1</b>, NOX1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GAAACTGGGTGGTTAACCAC</p> <p><b>KN210426G2</b>, NOX1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGACTTCCTATTAATTAGGA</p> <p><b>KN210426D</b>, 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**

```
GGTGTCCGGG CGCAGCCATG ACCCAGTCAC GTAGCGATAG CGGAGTGTAT ACTGGCTTAA CTATGCGGCA
TCAGAGCAGA TTGTA CTGAG AGTGCACCAT ATGCGGTGTG AAATACCGCA CAGATGCGTA AGGAGAAAAT
ACCGCATCAG GCGCTCTCC GCTTCCTCGC TCACTGACTC GCTGCGCTCG GTCGTTCCGC TCGCGCGAGC
GGTATCAGCT CACTCAAAGG CGGTAATACG GTTATCCACA GAATCAGGGG ATAACGCAGG AAAGAACATG
TGAGCAAAAG GCCAGCAAAA GGCCAGGAAC CGTAAAAAGG CCGCGTTGCT GCGGTTTTTC CATAGGCTCC
GCCCCCTGA CGAGCATCAC AAAAAATCGAC GCTCAAGTCA GAGGTGGCGA AACCCGACAG GACTATAAAG
ATACCAGGCG TTTCCCTG GAAGCTCCCT CGTGCCTCT CCTGTTCCGA CCCTGCCGCT TACCGGATAC
CTGTCCGCT TTCTCCCTT GGAAGCGTG GCGCTTCTC ATAGCTCAG CTGTAGGTAT CTCAGTTCGG
TGTAGGTCGT TCGCTCCAAG CTGGGCTGTG TGCACGAACC CCCCCTCAG CCCGACCGCT GCGCCTTATC
CGGTAACAT CGTCTTGAGT CCAACCCGGT AAGACACGAC TTATCGCCAC TGGCAGCAGC CACTGGTAAC
AGGATTAGCA GAGCGAGGTA TGTAGGCGGT GCTACAGAGT TCTTGAAGTG GTGGCCTAAC TACGGCTACA
CTAGAAGGAC AGTATTTGGT ATCTGCGCTC TGCTGAAGCC AGTTACCTTC GAAAAAAGAG TTGGTAGCTC
TTGATCCGCG AAACAAACCA CCGCTGGTAG CGGTGGTTTT TTTGTTTGA AGCAGCAGAT TACGCGCAGA
AAAAAAGGAT CTCAAGAAGA TCCTTTGATC TTTTCTACGG GGTCTGACGC TCAGTGGAAC GAAAACCTCAC
GTTAAGGGAT TTTGGTCAAG AGATTATCAA AAAGGATCTT CACCTAGATC CTTTTAAATT AAAAATGAAG
TTTTAAATCA ATCTAAAGTA TATATGAGTA AACTTGGTCT GACAGTTACC AATGCTTAAT CAGTGAGGCA
CCTATCTCAG CGATCTGTCT ATTTCTGTTA TCCATAGTTG CCTGACTCCC CGTCGTGTAG ATAACCTACGA
TACGGGAGGG CTTACCATCT GGCCCCAGTG CTGCAATGAT ACCGCGAGAC CCACGCCTAC CGGCTCCAGA
TTTATCAGCA ATAAACCAGC CAGCCGGAAG GGCCGAGCGC AGAAGTGGTC CTGCAACTTT ATCCGCTCC
ATCCAGTCTA TTAATTGTTG CCGGGAAGCT AGAGTAAGTA GTTCGCCAGT TAATAGTTTG CGCAACGTTG
TTGCCATTGC TGCAGGCATC GTGGTGTAC GCTCGCTGTT TGGTATGGCT TCATTCAGCT CCGGTTCCCA
ACGATCAAGG CGAGTTACAT GATCCCCAT GTTGTGCAAA AAAGCGGTTA GCTCCTTCGG TCTCCGATC
GTTGTAGAA GTAAGTTGGC CGCAGTGTTA TCACTCATGG TTATGGCAGC ACTGCATAAT TCTCTTACTG
```



TCATGCCATC CGTAAGATGC TTTTCTGTGA CTGGTGAGTA CTCAACCAAG TCATTCTGAG AATAGTGTAT  
 GCCGGCACC AGTTGCTCTT GCCCGGCGTC AACACGGGAT AATACCGCGC CACATAGCAG AACTTTAAAA  
 GTGCTCATCA TTGGAAAACG TTCTTCGGGG CGAAAACCTT CAAGGATCTT ACCGCTGTTG AGATCCAGTT  
 CGATGTAACC CACTCGTGCA CCCAACTGAT CTTCAGCATC TTTTACTTTC ACCAGCGTTT CTGGGTGAGC  
 AAAAACAGGA AGGCAAAATG CCGCAAAAAA GGAATAAAGG GCGACACGGA AATGTTGAAT ACTCATACTC  
 TTCCTTTTTT AATATTATTG AAGCATTTAT CAGGGTTATT **CTCCCCAAG** **CCATCATCAT** **ATATGTCAAC**  
**CACAGATCAT** **CCTCCAGGGG** **AACTGGTATG** **CTAAAGTTTC** **TGAGCTAGCC** **AGGCTGAAAT** **CCAAATGGCA**  
**GCCGGCAGAT** **GTGGCAACAG** **TTTGAAAAGT** **GCACTTTGAA** **ACAGCTTCCT** **TACCACACAC** **GCTTCCCTCC**  
**CTACTTCTCC** **TGAAGTAATC** **TGTTTACAGA** **CCCAGACTAA** **TAATCTTTTT** **TATGAGAAAC** **TTTAGCAAAT**  
**CTTTTATCTA** **GGAAGGCAAT** **GCTTCACATT** **AGGTCATGTT** **GATAAGATGA** **TGAGAGAGAA** **TATTTTCATC**  
**CAAGAATGTT** **GCTATTTCTT** **GAAGCAGTAA** **AATCCCCACA** **GGTAAAACCC** **TTGTGGTTCT** **CATAGATAGG**  
**GCTGGTCTAT** **CTAAGCTGAT** **AGCACAGTTC** **TGTCCAGAGA** **AGGAAGGCAG** **AATAAACTTA** **TTCATTCCCA**  
**GGAACCTTG** **GGTAGGTGT** **GTGTTTTTCA** **CATCTTAAAG** **GCTCACAGAC** **CCTGCGTGG** **ACAAATGTTC**  
**CATTCTGAA** **GGACCTCTCC** **AGAATCCGGA** **TTGCTGAATC** **TTCCCTGTTG** **CCTAGAAGGG** **CTCCAAACCA**  
**CCTCTTGACA** **ACTAGCATGG** **AGAGCGACGA** **GAGCGGCCTG** **CCCGCCATGG** **AGATCGAGTG** **CCGCATCACC**  
**GGCACCTGA** **ACGGCGTGA** **GTTTCGAGCTG** **GTGGGCGGCG** **GAGAGGGCAC** **CCCCGAGCAG** **GGCCGCATGA**  
**CCAACAAGAT** **GAAGAGCACC** **AAAGGCGCCC** **TGACCTTCAG** **CCCCTACCTG** **CTGAGCCACG** **TGATGGGCTA**  
**CGGCTTCTAC** **CACTTCGGCA** **CCTACCCAG** **CGGCTACGAG** **AACCCCTTCC** **TGCACGCCAT** **CAACAACGGC**  
**GGCTACACCA** **ACACCCGCAT** **CGAGAAGTAC** **GAGGACGGCG** **GCGTGCTGCA** **CGTGAGCTTC** **AGTACCGCT**  
**ACGAGGCCGG** **CCGCGTGATC** **GGCGACTTCA** **AGGTGATGGG** **CACCGGCTTC** **CCCGAGGACA** **GCGTGATCTT**  
**CACCGACAAG** **ATCATCCGCA** **GCAACGCCAC** **CGTGGAGCAC** **CTGCACCCCA** **TGGGCGATAA** **CGATCTGGAT**  
**GGCAGCTTCA** **CCCGCACCTT** **CAGCCTGCGC** **GACGGCGGCT** **ACTACAGCTC** **CGTGGTGGAC** **AGCCACATGC**  
**ACTTCAAGAG** **CGCCATCCAC** **CCCAGCATCC** **TGCAGAACGG** **GGGCCCCATG** **TTGCGCTTCC** **GCCCGTGGGA**  
**GGAGGATCAC** **AGCAACACCG** **AGCTGGGCAT** **CGTGGAGTAC** **CAGCACGCCT** **TCAAGACCCC** **GGATGCAGAT**  
**GCCGCTGAAG** **AAAGAGTTTA** **AGAATTCCGA** **TCATATTCAA** **TAACCCTTAA** **TATAACTTCG** **TATAATGTAT**  
**GCTATACGAA** **GTTATTAGGT** **CTGAAGAGGA** **GTTTACGTCC** **AGCCAAGCTT** **AGGATCTCGA** **CCTCGAAATT**  
**CTACCGGGTA** **GGGGAGGCGC** **TTTTCCCAAG** **GCAGTCTGGA** **GCATGCGCTT** **TAGCAGCCCC** **GCTGGCACTT**  
**GGCGCTACAC** **AAGTGGCCTC** **TGGCCTCGCA** **CACATTCCAC** **ATCCACCGGT** **AGCGCCAACC** **GGTCCCGTTC**  
**TTTGGTGGCC** **CCTTCGCGCC** **ACTTCTACT** **CCTCCCCTAG** **TCAGGAAGTT** **CCCCCCCCGC** **CCGCAGCTCG**  
**CGTCGTGCAG** **GACGTGACAA** **ATGGAAGTAG** **CACGTCTCAC** **TAGTCTCGTG** **CAGATGGACA** **GCACCGCTGA**  
**GCAATGGAAG** **CGGTAGGCC** **TTTGGGGCAG** **CGCCAATAG** **CAGCTTTGCT** **CCTTCGCTTT** **CTGGGCTCAG**  
**CAGCTGGGAA** **GGGTGGTCC** **GGGGGCGGGC** **TCAGGGGCGG** **GCTCAGGGGC** **GGGGCGGGCG** **CCCGAAGGTC**  
**CTCCGGAGGC** **CCGGCATTCT** **GCACGCTTCA** **AAAGCGCACG** **TCTGCCGCGC** **TGTTCTCCTC** **TTCTCATCT**  
**CCGGGCCTTT** **CGACCTGCAT** **CCATCTAGAT** **CTCGAGCAGC** **TGAAGCTTAC** **CATGACCAGG** **TACAAGCCCA**  
**CGGTGCGCCT** **CGCCACCCGC** **GACGACGTCC** **CCAGGGCCGT** **ACGCACCTC** **GCCGCCCGCT** **TCGCCGACTA**  
**CCCCGCCACG** **CGCCACACCG** **TCGATCCGGA** **CCGCCACATC** **GAGCGGGTCA** **CCGAGCTGCA** **AGAACTCTTC**  
**CTCACGCGCG** **TCGGGCTCGA** **CATCGGCAAG** **GTGTGGGTCC** **CGGACGACGG** **CGCCGCGGTG** **GCGGTCTGGA**  
**CCACGCCGGA** **GAGCGTCGAA** **GCGGGGGCGG** **TGTTCCGCGA** **GATCGGCCCG** **CGCATGGCCC** **AGTTGAGCGG**  
**TTCCCGGCTG** **GCCGCGCAGC** **AACAGATGGA** **AGGCCTCCTG** **GCGCCGCACC** **GGCCCAAGGA** **GCCCGCTGGG**  
**TTCTTGCCA** **CCGTCGGCGT** **CTCGCCCGAC** **CACCAGGGCA** **AGGGTCTGGG** **CAGCGCCGTC** **GTGCTCCCCG**  
**GAGTGAGGC** **GGCCGAGCGC** **GCCGGGTGTC** **CCGCCTTCTT** **GGAGACCTCC** **GCGCCCCACA** **ACCTCCCTT**  
**CTACGAGCGG** **CTCGGCTTCA** **CCGTCACCGC** **CGACGTCGAG** **GTGCCCGAAG** **GACCGCGCAC** **CTGGTGCATG**  
**ACCCGCAAGC** **CCGTGCCTG** **ACGCCCGCCC** **CACGACCCGC** **AGCGCCCGAC** **CGAAAGGAGC** **GCACGACCCC**  
**ATGCATCGAT** **GATATCAGAT** **CCCCGGGATG** **CAGAAATTGA** **TGATCTATTA** **AACAATAAAG** **ATGTCCAATA**  
**AAATGGAAGT** **TTTTCTGTG** **ATACTTTGTT** **AAGAAGGGTG** **AGAACAGAGT** **ACCTACATTT** **TGAATGGAAG**  
**GATTGGAGCT** **ACGGGGGTGG** **GGGTGGGGTG** **GGATTAGATA** **AATGCCTGCT** **CTTTACTGAA** **GGCTCTTTAC**  
**TATTGCTTTA** **TGATAATGTT** **TCATAGTTGG** **ATATCATAAT** **TTAAACAAGC** **AAAACCAAAAT** **TAAGGGCCAG**  
**CTCATTCTCT** **CCACTCATGA** **TCTATAGATC** **TATAGATCTC** **TCGTGGGATC** **ATTGTTTTTC** **TCTTGATTCC**  
**CACTTTGTGG** **TTCTAAGTAC** **TGTGGTTTCC** **AAATGTGTCA** **GTTTCATAGC** **CTGAAGAACG** **AGATCAGCAG**  
**CCTCTGTTC** **ACATACACTT** **CATTCTCAGT** **ATTGTTTTGC** **CAAGTTCTAA** **TTCCATCAGA** **AGCTGGTCCG**  
**GATCCGGAAC** **CCTTAATATA** **ACTTCGTATA** **ATGTATGCTA** **TACGAAGTTA** **TTAGTCCCTT** **CGAAGAGGTT**  
**CACTAGGCGC** **GCCAGGATTA** **AGGAGAAATC** **ATGTTTTTTA** **ATATTTGTAA** **AGCAATTTGA** **AAGAGAAAGA**

TGATTCCATG CCGATTATTG GGCTCATCAA GACCAGTTAG TTA AAAAATA CAACTGTGGG TCAGATGAGA  
 GGACAGAGGC AAATAACATG CAATTGTTC TGTGTCAA TCACAAGTAT TTGGAATTTT AATCTGTTTT  
 CTTTTCTGT CATCTCCCTT TCTCTCCAT CTCACTTCTA ACTACTACCA TGAGTGTCTA TTTCTCTCTA  
 TCTTTCTAT ACTGGTCCCA TCAAGATTTT AAAAAGTCAC TGAATGTTTG AGATGAAAGT GATCTTAGAG  
 ATCATCTGGC CCAGTACTGA CCACTAGAAA TATAGCAAA CACATAATGT AATTCCTAAA TTTTCTAATA  
 CCTACACCGA AAAGTAAAA ATAAACAGGT GAAGTTAATA TTTAACAATA TAATTCATTT AACCCAACAT  
 ATCAACAAAT CCTTTCAGTA TGTATTCAAT ATTGAAAATA TTAAGAAGCT AATTACATA TTTTTATTTT  
 TACTGAGTCT TTCAAATCTG ATGTGTATAT ATACCCACAG CACATCTCAG TGATCACTCT CGCCGGTTGG  
 ACTTTAGATC AGAAGGGATC TTGCTGCCGC CCGAAAGAGG AAGGGCTGGA AGAGGAAGGA GCTTTAATGC  
 GGTAGTTTAT CACAGTTAAA TTGCTAACGC AGTCAGGCAC CGTGTATGAA ATCTAACAAAT GCGCTCATCG  
 TCATCCTCGG CACCGTCACC CTGGATGCTG TAGGCATAGG CTTGGTTATG CCGGTA CTGC CCGGCTCTT  
 GCGGGATATC GTCCATTCCG ACAGCATCGC CAGTCACTAT GGCCTGCTGC TAGCGCTATA TGCGTTGATG  
 CAATTTCTAT GCGCACCCGT TCTCGGAGCA CTGTCCGACC GCTTTGGCCG CCGCCAGTC CTGCTCGCTT  
 CGTACTTGG AGCCACTATC GACTACGCGA TCATGGCGAC CACACCCGTC CTGTGGATCC TCTACGCCGG  
 ACGCATCGTG GCCGGCATCA CCGCGCCAC AGGTGCGGTT GCTGGCGCCT ATATCGCCGA CATCACCGAT  
 GGGGAAGATC GGCTCGCCA CTTCCGGCTC ATGAGCGCTT GTTTCGCGT GGGTATGGTG GCAGGCCCCG  
 TGCCCGGGG ACTGTTGGG GCCATCTCCT TGCATGCACC ATTCCTTGGC GCGCGGTGC TCAACGGCCT  
 CAACCTACTA CTGGGCTGCT TCTAATGCA GGAGTCGCAT AAGGGAGAGC GTCGACCGAT GCCCTTGAGA  
 GCCTTCAACC CAGTCAGCTC CTTCCGGTGG GCGCGGGCA TGACTATCGT CGCCGCACTT ATGACTGTCT  
 TCTTTATCAT GCAACTCGTA GGACAGGTGC CCGCAGCGCT CTGGGTCATT TTCGGCAGG ACCGCTTTCG  
 CTGGAGCGCG ACGATGATCG GCCTGTCGCT TCGGATTC GGAATCTTGC ACGCCCTCGC TCAAGCCTTC  
 GTCAGTGGT CCGCCACCAA ACGTTTCGGC GAGAAGCAGG CCATTATCGC CCGCATGGCG GCCGCGCGC  
 TGGGTACGT CTTGCTGGCG TTCGCGACGC GAGGCTGGAT GGCCTTCCC ATTATGATTC TTCTCGTTC  
 CGCGGCATC GGGATGCCCG CGTTGCAGGC CATGCTGTCC AGGCAGGTAG ATGACGACCA TCAGGGACAG  
 CTTCAAGGAT CGCTCGCGC TCTTACCAGC CTAACCTCGA TCACTGGACC GCTGATCGTC ACGGCGATTT  
 ATGCCGCCTC GCGGAGCACA TGGAACGGT TGGCATGGAT TGTAGGCGCC GCCCTATACC TTGTCTGCCT  
 CCCC CGTTCGCGGTG CATGGAGCCG GGCCACCTCG ACCTGAATGG AAGCCGCGCG CACCTCGCTA  
 ACGGATTCAC CACTCCAAGA ATTGGAGCCA ATCAATTCTT GCGGAGAACT GTGAATGCGC AAACCAACCC  
 TTGGCAGAAC ATATCCATCG CGTCCGCCAT CTCCAGCAGC CGCACGCGGC GCATCTCGGG CAGCGTTGGG  
 TCCTGGCCAC GGGTGCAT GATCGTGCTC CTGTCGTTGA GGACCCGCT AGGCTGGCGG GGTGCTTA  
 CTGTTAGCA GAATGAATCA CCGATACGCG AGCGAACGTG AAGCGACTGC TGCTGCAAAA CGTCTGCGAC  
 CTGAGCAACA ACATGAATGG TCTTCGGTT CCGTGTTCG TAAAGTCTGG AAACGCGGAA GTCAGCGCCC  
 TGACCATTA TGTTCGGAT CTGCATCGCA GGATGCTGCT GGCTACCCTG TGAACACCT ACATCTGTAT  
 TAACGAAGCG CTGGCATTGA CCTGAGTGA TTTTCTCTG GTCCCGCCG ATCCATACCG CCAGTTGTTT  
 ACCCTCACA CGTTCCAGTA ACCGGGCATG TTCATCATCA GTAACCCGTA TCGTGAGCAT CCTCTCTCGT  
 TTCATCGGTA TCATTACCC CATGAACAGA AATCCCCTT ACACGGAGGC ATCAGTGACC AAACAGGAAA  
 AAACCGCCCT TAACATGGCC CGC

**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\\_001271815](#), [NM\\_007052](#), [NM\\_013954](#), [NM\\_013955](#)

**UniProt ID:**

[Q9Y5S8](#)

**Synonyms:**

GP91-2; MOX1; NOH-1; NOH1

**Summary:**

This gene encodes a member of the NADPH oxidase family of enzymes responsible for the catalytic one-electron transfer of oxygen to generate superoxide or hydrogen peroxide. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Nov 2012]

**Product images:**
