

Product datasheet for **KN218923**

Ataxin 3 (ATXN3) 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:	Ataxin 3
Locus ID:	4287
Components:	<p>KN218923G1, Ataxin 3 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AAGTGAGTGTCCGCGTTCGG</p> <p>KN218923G2, Ataxin 3 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CGGCATCACCGCCTCTCGGA</p> <p>KN218923D, 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 GGGGCGAAAA CTCTCAAGGA TCTTACCCTT GTTGAGATCC AGTTTCGATG
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCAGC GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAAACA AATAGGGGTT CCGCGCACAT TTCCCGGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGGG TCGCGGTTT CGGTGATGAC
GGTAAAACC TCTGACACAT GCAGCTCCCG TTGACGGTCA CAGCTTGCTT GTAAGCGGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTCGC GTTAAATTTT
TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG GCAAAAATCC TTATAAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT CACCCAAATC AAGTTTTTTG
GGGTCGAGGT GCCGTAAAGC ACTAAATCGG AACCCCTAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGCGGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTACAG CTGCGCGTAA CCACCACACC CGCCGCGCTT AATGCGCCGC 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 CTTTCACTGA CTGACTGACT GGAAGACACA

```



[View online »](#)

CCTTCTCCA TGTTGGTCAG GCTGATCTCA AACTCCCGAC CTCAGGTGAT CCGCCCGCCT CGGCCTCCCA
 AAGTGCTGGG ATTACAAGCG TGAAGCACCT CGCCCGGCTT AGCTATCATT TTTATACAAG TGCTGGGTTT
 TGGGAGAATG TAATGATGGC TTTTCTTTA CTAAACTTTC AGTGCAGGAG GAGGAGAAAG AAAGTAAATA
 GTTATATGAA CACAGTAGAA AGTCAAAGTG GAAAACAAAA AGAACATAGA ACCCAGGTGA GCGGTCCAGA
 CCTCCCCCA GAAACCTAAG AATCCATAGA AATGGGTGGG AAGCGGAGAA GATCCTCCAG ACAGCAGGTG
 GCGATGTAGC ATCCCCAGA AGGCCCGCTA ACAGAAGCTA GGAGGACGCG CTACCAAGGT CACGTGTCCC
 CGGCGTTAC TCGCTCTCG CTTCACGACA CTCGCATCTT CACGGGTGAT TGGTCTGCGT GCGGCACGTG
 GCGGGGTAC CGGGCGGGC CGGGGAGGGG CGGGGTGGGC GGAGGAGAGG GGCAGGGGGC GGAGCTGGAG
 GGGGTGGTTC GCGGTGGGGG CCGTTGGCTC CAGACAATA AACACTAGCA TGGAGAGCGA CGAGAGCGGC
 CTGCCCGCCA TGGAGATCGA GTGCCGCATC ACCGGCACCC TGAACGGCGT GGAGTTCGAG CTGGTGGGCG
 GCGGAGAGGG CACCCCGAG CAGGGCCGCA TGACCAACAA 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
 GGAGCATGCG CTTTAGCAGC CCCGTGGGC ACTTGGCGCT ACACAAGTGG CCTCTGGCCT CGCACACATT
 CCACATCCAC CGGTAGGCGC CAACCGACTC CGTTCTTTGG TGGCCCTTC GCGCCACCTT CTACTCTCC
 CCTAGTCAGG AAGTTCCTCC CGGCCCGCA GCTCGCGTCG TGCAGGACGT GACAAAATGGA AGTAGCACGT
 CTAAGTAGTC TCGTGCAGAT GGACAGCACC GCTGAGCAAT GGAAGCGGGT AGGCCTTTGG GGCAGCGGCC
 AATAGCAGCT TTGCTCCTTC GCTTCTGGG CTCAGAGGCT GGAAGGGGT GGGTCCGGGG GCGGGCTCAG
 GGGCGGGTTC AGGGGCGGGG CGGGCGCCG AAGGTCTCTC GGAGGCCCGG CATTCTGCAC GCTTCAAAAG
 CGCACGTCTG CCGCGCTGTT CTCCTCTTCC TCATCTCCGG GCCTTTCGAC CTGCATCCAT CTAGATCTCG
 AGCAGCTGAA GCTTACCATG ACCGAGTACA AGCCACGGT GCGCCTCGCC ACCCGCAGC ACGTCCCCAG
 GGGCGTACG ACCCTCGCG CCGCGTTCG CACTACCCG GCCACGCGCC ACACCGTGA TCCGGACCGC
 CACATCGAGC GGGTCACCGA GCTGCAAGAA CTCTTCTCA CGCGCGTCGG GCTCGACATC GGCAAGGTGT
 GGGTCCGGGA 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 GGGTCCCCGC
 CTTCTGGAG ACCTCCGCGC CCCACAACCT CCCCTTCTAC GAGCGGCTCG GCTTACCGT CACCGCCGAC
 GTCGAGGTGC CCGAAGGACC GCGCACCTGG TGCATGACCC GCAAGCCCGG TGCCTGACGC CCGCCCCAG
 ACCCGCAGCG CCCGACCGAA AGGAGCGCAC GACCCCATGC ATCGATGATA TCAGATCCCC GGGATCGAGA
 AATTGATGAT CTATTAACA ATAAAGATGT CCACTAAAAT GGAAGTTTTT CCTGTACATC TTTGTTAAGA
 AGGGTGAGAA CAGAGTACCT ACATTTTGAA TGAAGGATT GGAGCTACGG GGGTGGGGT GGGGTGGGAT
 TAGATAAATG CCGTCTCTT ACTGAAGGCT CTTTACTATT GCTTTATGAT AATGTTTCAT AGTTGGATAT
 CATAATTTAA ACAAGCAAAA CCAAATTAAG GGCCAGCTCA TTCCTCCAC TCATGATCTA TAGATCTATA
 GATCTCTCGT GGGATCATTG TTTTCTCTT GATTCCACT TTGTGGTTCT AAGTACTGTG GTTTCCAAAT
 GTGTCAGTTT CATAGCCTGA AGAACGAGAT CAGCAGCTC TGTTCCACAT ACACTTCATT CTCAGTATTG
 TTTTGCCAAG TTCTAATTCC ATCAGAAGCT GGTGAGATC CGGAACCCTT AATATAACTT CGTATAATGT
 ATGCTATACG AAGTTATTAG GTCCTCGAA GAGGTTCACT AGGCGCGCT **CCTCGGCTCG** **AGGAGGGGAG**
CATCACCTAC **GCCCTACTT** **CCCCCGCGC** **CCCCGCCCTG** **GGAGCCGGGA** **GGGAGTATGG** **GCGGGGCGG**
GGGCGTCTCG **GGACACGGGA** **GTGGGTGGC** **GCCAGTGGG** **TTTGCTTCTG** **CCTTCTCCG** **TCACTTTCCA**
TCGCTTTTCG **GAGGATTCTT** **TCACCCCTCC** **CCAATCCTT** **CCTCTCCCTA** **GGGTCTAGT** **AGAGTCATCT**
CTGGGACACC **TCCTCAACC** **CCTCTACCC** **TAATCCTGGC** **AGAATTAAC** **TTTCTCTCTC** **CGGACTGCTC**
AATTCTATAT **TGGAGTCTT** **CCTACACGTA** **GATCTTTGGG** **GTCTTGTTCG** **TGTCTTTCCC** **CTGCACTAGG**
TCCCGAGGCC **TCCCGAGGGA** **GGAGACCTTG** **GCTCGCCAC** **TGTAGGGCCT** **GACATTTAGG** **AAGTGAAGTA**

GGAAACCCGG CGTGCCCTA AACAGGGAAG TCGTCACAAG AGTTTTTATT ACGGGATGTT TGGGTTTGGT
 TTCTTTTGGT ACTCCCATCT TTCCGGAGCA GGCGGCCAGC TTTGTTTTTA GGTATTAGGA GTGGACTGGG
 ATGATTTTGT TGTAGTCTGA CGAACTGGCA GGTACTGACT GACTGGAAAG AGGAAGGGCT GGAAGAGGAA
 GGAGCTTGGC GTAATCATGG TCATAGCTGT TTCCTGTGTG AAATTGTTAT CCGCTCACAA TTCCACACAA
 CATACGAGCC GGAAGCATAA AGTGATAAGC CTGGGGTGCC TAATGAGTGA GCTAACTCAC ATTAATTGGC
 TTGCGCTCAC TGCCCGCTTT CCAGTCGGGA AACCTGTCTG GCCAGCTGCA TTAATGAATC GGCCAACCGC
 CGGGGAGAGG CGGTTTGGGT ATTGGGCGCT CTTCCGCTTC CTCGCTCACT GACTCGTGC GCTCGTCTG
 TCGGCTGCGG CGAGCGGTAT CAGCTCACTC AAAGGCGGTA ATACGGTTAT CCACAGAATC AGGGGATAAC
 GCAGGAAAGA ACATGTGAGC AAAAGGCCAG CAAAAGGCCA GGAACCGTAA AAAGGCCGCG TTGCTGGCGT
 TTTTCCATAG GCTCCGCCCC CCTGACGAGC ATCACAAAAA TCGACGCTCA AGTCAGAGGT GGCGAAACCC
 GACAGGACTA TAAAGATACC AGGCGTTTCC CCCTGGAAGC TCCCTCGTGC GCTCTCCTGT TCCGACCCTG
 CCGCTTACCG GATACCTGTC CGCCTTTCTC CTTTCGGGAA GCGTGGCGCT TTCTCATAGC TCACGCTGTA
 GGTATCTCAG TTCGGTGTAG GTCGTTCCGCT CCAAGCTGGG CTGTGTGCAC GAACCCCGG TTCAGCCCGA
 CCGCTGCGCC TTATCCGGTA ACTATCGTCT TGAGTCCAAC CCGTAAGAC ACGACTTATC GCCACTGGCA
 GCAGCCACTG GTAACAGGAT TAGCAGAGCG AGGTATGTAG GCGGTGCTAC AGAGTCTTGT AAGTGGTGGC
 CTAACACTAGG CTACACTAGA AGAACAGTAT TTGGTATCTG CGCTCTGCTG AAGCCAGTTA CCTTCGAAA
 AAGAGTTGGT AGCTCTTGT CCGGCAAACA AACCACCCTG GGTAGCCGTG GTTTTTTGT TTGCAAGCAG
 CAGATTACGC GCAGAAAAA AGGATCTCAA GAAGATCCTT TGATCTTTTC TACGGGGTCT GACGCTCAGT
 GGAACGAAAA CTCACGTAA GGGATTTTGG TCATGAGATT ATCAAAAAGG ATCTTCACCT AGATCCTTTT
 AAATTAATAA TGAAGTTTTA AATCAATCTA AAGTATATAT GAGTAACTT GGTCTGACAG TTACCAATGC
 TTAATCAGTG AGGCACCTAT CTCAGCGATC TGCTATTTTC GTTCATCCAT AGTTGCCTGA CTCCCCGTCG
 TGTAGATAAC TACGATACGG GAGGGCTTAC CATCTGGCCC CAGTGTGCA ATGATACCGC GAGAACCACG
 CTCACCCGCT CCAGATTTAT CAGCAATAAA CCAGCCAGCC GGAAGGGCCG AGCGCAGAAG TGGTCTGCA
 ACTTTATCCG CCTCCATCCA GTCTATTAAT TGTTGCCGGG AAGCTAGAGT AAGTAGTTCG CCAGTTAATA
 GTTTGCGCAA CGTTGTTGCC ATTGCTACAG GCATCGTGGT GTCACGCTCG TCGTTTGGA TGGCTTCATT
 CAGCTCCGGT TCCCAACGAT C

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_001024631](#), [NM_001127696](#), [NM_001127697](#), [NM_001164774](#), [NM_001164775](#),
[NM_001164776](#), [NM_001164777](#), [NM_001164778](#), [NM_001164779](#), [NM_001164780](#),
[NM_001164781](#), [NM_001164782](#), [NM_004993](#), [NM_030660](#), [NR_028453](#), [NR_028454](#),
[NR_028455](#), [NR_028456](#), [NR_028457](#), [NR_028458](#), [NR_028459](#), [NR_028460](#), [NR_028461](#),
[NR_028462](#), [NR_028463](#), [NR_028464](#), [NR_028465](#), [NR_028466](#), [NR_028467](#), [NR_028468](#),
[NR_028469](#), [NR_028470](#), [NR_031765](#)

UniProt ID:

[P54252](#)

Synonyms:

AT3; ATX3; JOS; MJD; MJD1; SCA3

Summary:

Machado-Joseph disease, also known as spinocerebellar ataxia-3, is an autosomal dominant neurologic disorder. The protein encoded by this gene contains (CAG)_n repeats in the coding region, and the expansion of these repeats from the normal 12-44 to 52-86 is one cause of Machado-Joseph disease. There is a negative correlation between the age of onset and CAG repeat numbers. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2016]

Product images:

