

## Product datasheet for **KN403348**

### **MCART1 (SLC25A51) Human Gene Knockout Kit (CRISPR)**

#### **Product data:**

|                      |                                |
|----------------------|--------------------------------|
| <b>Product Type:</b> | Knockout Kits (CRISPR)         |
| <b>Format:</b>       | 2 gRNA vectors, 1 linear donor |
| <b>Donor DNA:</b>    | EF1a-GFP-P2A-Puro              |
| <b>Symbol:</b>       | MCART1                         |
| <b>Locus ID:</b>     | 92014                          |



Components:

**KN403348G1**, MCART1 gRNA vector 1 in pCas-Guide CRISPR vector (GEI00002)

**KN403348G2**, MCART1 gRNA vector 2 in pCas-Guide CRISPR vector (GEI00002)

**KN403348D**, Linear donor DNA containing LoxP-EF1A-tGFP-P2A-Puro-LoxP:

The sequence below is cassette sequence only. The linear donor DNA also contains proprietary target sequence.

LoxP-EF1A-tGFP-P2A-Puro-LoxP (2739 bp)

ATAACTTCGT ATAATGTATG CTATACGAAG TTATCGTGAG GCTCCGGTGC CCGTCAGTGG GCAGAGCGCA CATCGCCAC  
AGTCCCGCAG AAGTTGGGGG GAGGGGTCCG CAATTGAACC GGTGCCTAGA GAAGGTGGCG CGGGGTAAC TGGGAAAGTG  
ATGTCGTGTA CTGGCTCCGC CTTTTTCCCG AGGGTGGGG AGAACCGTAT ATAAGTCGAG TAGTCGCCGT GAACGTTCTT  
TTTCGCAACG GGTTCGCCGC CAGAACACAG GTAAGTGCCG TGTGTGGTTC CCGCGGGCCT GGCCTCTTTA CGGGTTATGG  
CCCTTGCGTG CTTGAATTA CTTCCACCTG GCTGCAGTAC GTGATTCTTG ATCCCGAGCT TCGGGTTGGA AGTGGGTGGG  
AGAGTTCGAG GCCTTGCGCT TAAGGAGCCC CTTCGCCTCG TGCTTGAGTT GAGGCTGGC CTGGGCGCTG GGGCCGCCGC  
GTGCGAATCT GGTGGCACCT TCGCGCTGT CTCGCTGCT TCGATAAGTC TCTAGCCATT TAAATTTTTT GATGACCTGC  
TGCGACGCTT TTTTCTGGC AAGATAGTCT TGTAATGCG GGCCAAAGATC TGCACACTGG TATTTCGGTT TTTGGGGCCG  
CGGGCGGCGA CGGGGCCCGT GCGTCCCAGC GCACATGTTT GGCGAGGCGG GGCTGCGAG CGCGGCCACC GAGAATCGGA  
CGGGGTAGT CTCAAGCTGG CCGGCTGCT CTGGTGCCTG GCCTCGCGCC GCCGTGTATC GCGCCGCCCT GGGCGGCAAG  
GCTGGCCCGG TCGGCACCAG TTGCGTGAGC GGAAGATGG CCGCTCCCG GCCCTGCTGC AGGGAGCTCA AAATGGAGGA  
CGCGGCGCTC GGGAGAGCGG GCGGGTGAGT CACCCACACA AAGGAAAAGG GCCTTTCGT CCTCAGCGCT CGCTTCATGT  
GACTCCACGG AGTACCGGGC GCCGTCCAGG CACCTCGATT AGTTCGCGAG CTTTGGAGT ACCTCGTCTT TAGGTTGGGG  
GGAGGGGTTT TATGCGATGG AGTTTCCCA CACTGAGTGG GTGGAGACTG AAGTTAGGCC AGCTTGGCAC TTGATGTAAT  
TCTCCTGGA ATTTGCCCTT TTTGAGTTG GATCTTGTT CATTCTCAAG CTTGAGACAG TGGTTCAAAG TTTTCTCTT  
CCATTTACAG TGTCGTGAAT GGAGAGCGAC GAGAGCGGCG TGCCCGCCAT GGAGATCGAG TGCCGCATCA CCGGCACCTC  
GAACGCGCTG GAGTTCGAGC TGGTGGGCGG CGGAGAGGCG ACCCCGAGC AGGGCCGCAT GACCAACAAG ATGAAGAGCA  
CCAAAGGCGC CCTGACCTTC AGCCCTACC TGCTGAGCCA CGTGATGGG TACGGCTTCT ACCACTTCGG CACTACCCC  
AGCGGCTACG AGAACCCTT CCTGCACGCC ATCAACAACG GCGGCTACAC CAACACCCG ATCGAGAAGT ACGAGGACGG  
CGGCGTGCTG CACGTGAGCT TCAGCTACCG CTACGAGGCC GGCCGCGTGA TCGCGCACTT CAAGGTGATG GGCACCGGCT  
TCCCCGAGGA CAGCGTGATC TTCACCGACA AGATCATCCG CAGCAACGCC ACCGTGGAGC ACCTGCACCC CATGGGCGAT  
AACGATCTGG ATGGCAGCTT CACCCGCACC TTCAGCCTGC GCGACGGCGG CTACTACAGC TCCGTGGTGG ACAGCCACAT  
GCATTTCAAG AGCGCCATCC ACCCCAGCAT CCTGCAGAAC GGGGGCCCCA TGTTGCCTT CCGCCGCGTG GAGGAGGATC  
ACAGCAACAC CGAGCTGGG ATCGTGAGT ACCAGCACGC CTTCAAGACC CCGGATGCAG ATGCCGGTGA AGAAAGAGGA  
AGCGGAGCTA CTAACCTCAG CCTGCTGAAG CAGGCTGGAG ACGTGGAGGA GAACCTGGA CCTATGACCG AGTACAAGCC  
CACGGTGCGC CTCGCCACCC GCGACGAGT CCCCAGGGCC GTACGCACCC TCGCCGCGC GTTCGCCGAC TACCCGCCA  
CGCGCCACAC CGTCGATCCG GACCGCCACA TCGAGCGGT CACCGAGCTG CAAGAACTCT TCCTCACGCG CGTCGGGCTC  
GACATCGGCA AGGTGTGGT CGCGGACGAC GCGCGCGCGG TGCGGTCTG GACCACGCCG GAGAGCGTCG AAGCGGGGGC  
GGTGTTCGCC GAGATCGGCC CGCGCATGGC CGAGTTGAGC GGTTCGCCG TGCGCGCGCA GCAACAGATG GAAGGCCTCC  
TGGCGCCGCA CCGGCCAAG GAGCCCGCT GGTTCCTGCG CACCGTCGGC GTCTCGCCCG ACCACAGGG CAAGGGTCTG  
GGCAGCGCCG TCGTGTCTCC CGGAGTGGAG GCGGCCGAGC GCGCCGGGT GCCCGCCTTC CTGGAGACCT CCGCGCCCCG  
CAACCTCCCC TTCTACGAGC GGCTCGGCTT CACCGTCACC GCGGACGTCG AGGTGCCGA AGGACCGCGC ACCTGGTGCA  
TGACCCGCAA GCCCGGTGCC TGAAACTTGT TTATTGCAGC TTATAATGGT TACAAATAAA GCAATAGCAT CACAAATTC  
ACAAATAAAG CATTTTTTTC ACTGCATTCT AGTTGTGGTT TGTCCAACT CATCAATGTA TCTTAATAAC TTCGTATAAT  
GTATGCTATA CGAAGTTAT



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| <b>OTI Disclaimer:</b> | 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. |
| <b>RefSeq:</b>         | <a href="#">NM_033412</a> , <a href="#">NR_024872</a> , <a href="#">NR_024873</a>                                                                                                                                                                                                                                                                                                     |
| <b>UniProt ID:</b>     | <a href="#">Q9HIU9</a>                                                                                                                                                                                                                                                                                                                                                                |
| <b>Synonyms:</b>       | CG7943; MCART1                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Summary:</b>        | Mitochondrial membrane carrier protein that mediates the import of NAD(+) into mitochondria (PubMed:32906142). Mitochondrial NAD(+) is required for glycolysis and mitochondrial respiration (PubMed:32906142). Compared to SLC25A52, SLC25A51-mediated transport is essential for the import of NAD(+) in mitochondria (PubMed:32906142).[UniProtKB/Swiss-Prot Function]             |

### Product images:

