

Product datasheet for **KN309278**

Lif Mouse 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: Lif
Locus ID: 16878
Components: **KN309278G1**, Lif gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCCAGGAAAGTAACTTACAT
KN309278G2, Lif gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AATCAACTGGCACAGCTCAA
KN309278D, 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**

```
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 TCTTACCCTG GTTGAGATCC AGTTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCACAG 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 CCCTTTCGTC TCGCGGTTT CGGTGATGAC
GGTAAAACC TCTGACACAT GCAGCTCCCG GAGACGGTCA CAGCTTGCTT GTAAGCGGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTCGC GTTAAATTTT
TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG GCAAAATCCC TTATAAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT CACCCAATC AAGTTTTTTG
GGGTCGAGGT GCCGTAAAGC ACTAAATCGG AACCCATAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGCGGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTACG CTGCGGTAA CCACCACACC CGCCGCGCTT AATGCGCCGC TACAGGGCGC GACTATGGT
TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATCGCT AAGGAGAAAA TACCGCATCA GGCGCCATC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGCTATTACG CCAGCTGGCG
AAAGGGGAT GTGCTGCAAG GCGATTAAGT TGGGTAACGC CAGGGTTTTT CCAGTACAGA CGTTGTAATA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACAGG CTGTCGCCGT GCTCATTTGA
```



[View online »](#)

TAACTGCCCG TTATTCATGC GACACATGGT CTACAGAAAC CCCAGCTCCC AGCCTGCACG GCCTGCAAGG
 GGTTACAGTC AGAGTTCTAG GCTCCAGTGG GCCAATGGAC ACCAACCAAG TTAAGAATCT GGCCGGTCTT
 GGAAAGGGGA GGACGGTTTA TTTCTCTTCC CCTCTGCTGG ACCTAATACC ATCCATCTAG GGTACCAGGA
 GGGATGAGGC TAGATGGTTG AGTGCCCCCG CCCCCAGAC CTAGCTTTCA GTTGGTACAA ATGGCTCCCA
 CCTTGATACC TTGCCTCTTA ATCCAGTGGC ATAGATGGGG AAAGTGAAGC CTGGGAGCAG GGAAAGAGAA
 AGCCAGAGAG CCAGGGAACC TCAGTAGAGC AGGAGACTAA AGGCTGATGG AGGGTGGGAG GGGGCAGGAA
 GGGCCTCGCT GAGGTGCCCC CCCAACCCCC GTGCCGTGAC CCTCAGCCAG GCTTCTTGCC TTTCCAGTCA
 CCCTCCGTGT CTCTCCAGG GATTGTGCC TTAGTGCTGC TGGTTCTGCA CTGGAAACAC GGGGCAGGGA
 GCCCTCTTCC CATCACCCCT GTAATGCCA CCTGTGCCAT ACGCCACCCA TGCCACGGCA ACCTCCTACTAG
 CATGGAGAGC GACGAGAGCG GCCTGCCCGC CATGGAGATC GAGTGCCGCA TCACCGGCAC CCTGAACGGC
 GTGGAGTTCG AGCTGGTGGG CGGCGGAGAG GGCACCCCGC AGCAGGGCCG CATGACCAAC AAGATGAAGA
 GCACCAAAGG CGCCCTGACC TTCAGCCCTT ACCTGCTGAG CCACGTGATG GGCTACGGCT TCTACCACTT
 CGGCACCTAC CCCAGCGGCT ACGAGAACC CTTCCTGCAC GCCATCAACA ACGGCGGCTA CACCAACACC
 CGCATCGAGA AGTACGAGGA CGGCGGCGTG CTGCACGTGA GCTTCAGCTA CCGCTACGAG GCCGGCCGCG
 TGATCGGCGA CTTCAAGGTG ATGGGCACCG GCTTCCCGA GGACAGCGTG ATCTTACCAC ACAAGATCAT
 CCGCAGCAAC GCCACCGTGG AGCACCTGCA CCCCATGGGC GATAACGATC TGGATGGCAG CTTACCCCGC
 ACCTTCAGCC TGC GCGACGG CGGCTACTAC AGCTCCGTGG TGGACAGCCA CATGCACCTT AAGAGCGCCA
 TCCACCCAG CATCCTGCAG AACGGGGGCC CCATGTTTCG CTTCCGCCG GTGGAGGAGG ATCACAGCAA
 CACCGAGCTG GGCATCGTGG AGTACCAGCA CGCCTTCAAG ACCCCGGATG CAGATGCCGG TGAAGAAAGA
 GTTTAAGAAT TCCGATCATA TTCAATAACC CTTAATATAA CTTCTGATAA TGTATGCTAT ACGAAGTTAT
 TAGGTCTGAA GAGGAGTTTA CGTCCAGCCA AGCTTAGGAT CTCGACCTCG AAATTCTACC GGGTAGGGGA
 GGCCTTTTC CCAAGGCAGT CTGGAGCATG CGCTTTAGCA GCCCGCTGG CACTTGGCCG TACACAAGTG
 GCCTCTGGCC TCGCACACAT TCCACATCCA CCGGTAGCCG CAACCGGCTC CGTTCTTTGG TGGCCCTTC
 GCGCCACCTT CTACTCTCC CCTAGTCAGG AAGTTCCTCC CCGCCCGCA GCTCGCGTCG TGCAGGACGT
 GACAAATGGA AGTAGCACGT CCACTAGTTC TCGTGCAGAT GGACAGCACC GCTGAGCAAT GGAAGCGGGT
 AGGCCTTTGG GGCAGCGGCC AATAGCAGCT TTGCTCCTT GCTTTCTGGG CTCAGCAGCT GGAAGGGTG
 GGTCCGGGGG CGGGCTCAGG GGCAGGCTCA GGGGCGGGG GGGCGCCGA AGGTCTCCG GAGGCCGGC
 ATTCTGCACG CTTCAAAGC GCACGTCTGC CGCGCTGTTT TCCTCTTCTT CATCTCCGGG CCTTTCGACC
 TGCATCCATC TAGATCTCGA GCAGCTGAAG CTTACCATGA CCGAGTACAA GCCCACGGTG CGCCTCGCCA
 CCCGCGACGA CGTCCCAGG GCCGTACGCA CCCTCGCCG CGCGTTCCG GACTACCCCG CCACGCGCCA
 CACCGTCGAT CCGGACCGCC ACATCGAGCG GGTACCGGAG CTGCAAGAAC TCTTCTCAC GCGCGTCGGG
 CTCGACATCG GCAAGGTGTG GGTGCGGAC GACGCGCCG CCGTGGCGGT CTGGACCACG CCGGAGAGCG
 TCGAAGCGGG GGCAGGTGTT GCCGAGATCG GCCCGCGCAT GGCCGAGTTG AGCGGTTCCG GGCTGGCCG
 GCAGCAACAG ATGGAAGGCC TCCTGGCGCC GCACCGGCC AAGGAGCCCG CGTGGTTCTT GGCCACCGTC
 GGCCTCTCGC CCGACCACA GGGCAAGGGT CTGGGACGCG CCGTCTGTCT CCCCAGGAGT GAGGCGGCCG
 AGCGCGCCCG GGTGCCCGCC TTCCTGGAGA CCTCCGCGCC CCACAACCTC CCCTTCTACG AGCGGCTCGG
 CTTACCGTTC ACCGCGACG TCGAGGTGCC CGAAGGACCG CGCACCTGGT GCATGACCCG CAAGCCCGGT
 GCCTGACGCC CGCCCCAGCA CCCGACGCG CCGACCGAAA GGAGCGCACG ACCCCATGCA TCGATGATAT
 CAGATCCCCG GGATGCAGAA ATTGATGATC TATTAACAA TAAAGATGTC CACTAAAATG GAAGTTTTTC
 CTGTCATACT TTGTTAAGAA GGGTGAGAAC AGAGTACCTA CATTGTAAT GGAAGGATTG GAGCTACGGG
 GGTGGGGGTG GGGTGGGATT AGATAAATGC CTGCTCTTTA CTGAAGGCTC TTTACTATTG CTTTATGATA
 ATGTTTCATA GTTGATATC ATAATTTAAA CAAGCAAAAC CAAATTAAGG GCCAGCTCAT TCCTCCACT
 CATGATCTAT AGATCTATAG ATCTCTCGTG GGATCATTGT TTTTCTCTTG ATTCCCACTT TGTGGTTCTA
 AGTACTGTGG TTTCAAATG TGTCAAGTTC ATAGCCTGAA GAACGAGATC AGCAGCCTCT GTTCCACATA
 CACTTCATTC TCAGTATTGT TTTGCCAAGT TCTAATTCCA TCAGAAGCTG GTCGAGATCC GGAACCCTTA
 ATATAACTTC GTATAATGTA TGCTATACGA AGTTATTAGG TCCCTCGAAG AGGTTCACTA GGCAGCCTG
 AGGAAGGGGG GGGCTGCCTG GCCCGGAGGG GTGCCCTTCA GAGCTGGAAG AGCGCTGTGG GAACCCATGG
 CTCCTCCCC ACACCCTAGC CAAAGCACAG AGACTGGTGG GCACCACTCG CCAGCAAGTT GGGGTGAGCG
 GCGGGGACTG TGCTTTCTGT CTTGTCCCAT GGCTCAGGGT ACCAAAGAAG AGGCTATGCA GTGAATGGAC
 AGGGAGGTGT CATTGAAAGC AGTGTGTGTG GGGGGCCAG GAAGAGGCTG GGGTACTGA AAGTGCAAGT
 GTATGTGGTG TTCTGGCTGA GGTGACACCT GCGACATGCC ACATTTCTC TATCCATTTA TGTCACCGTG
 ACCTTGTTGA GTGAGTTCAC ATTTCTGATC ATTGCTGACT AATGATTCTA GTTGCTACA GGGCAGCAAG

TGGAGTCCCC ATGTCACAGG TGGGAAACA GAAGTGCAAG AGCTTGCCCC AAGGGTTGTT GCGGGGCTAG
 AACACTCACC CTGACTCCCA CATCACCTCT CCTCTCTTCT GCAGTACACA GCTCAAGGGG AGCCGTTTCC
 CAACAACGTG GAAAAGCTAT GTGCGCTAA CATGACAGTC ACTCTCGCCG GTTGGACTTT AGATCAGAAG
 GGATCTTGCT GCCGCCGAA AGAGGAAGGG CTGGAAGAGG AAGGAGCTTG GCGTAATCAT GGTCATAGCT
 GTTTCCTGTG TGAATTGTT ATCCGCTCAC AATTCCACAC AACATACGAG CCGGAAGCAT AAAGTGTAAG
 GCCTGGGGTG CCTAATGAGT GAGCTAACTC ACATTAATTG CGTTGCGCTC ACTGCCCGTC TTCCAGTCGG
 GAAACCTGTC GTGCCAGCTG CATTAATGAA TCGGCCAACG CCGGGGAGA GCGGTTTGC GTATTGGGCG
 CTCTCCGCT TCCTCGCTCA CTGACTCGCT GCGCTCGGTC GTTCGGCTGC GCGGAGCGGT ATCAGCTCAC
 TCAAAGGCGG TAATACGGTT ATCCACAGAA TCAGGGGATA ACGCAGGAAA GAACATGTGA GCAAAAAGGCC
 AGCAAAAGGC CAGGAACCGT AAAAAGGCCG CGTTGCTGGC GTTTTTCCAT AGGCTCCGCC CCCCTGACGA
 GCATCACAAA AATCGACGCT CAAGTCAGAG GTGGCGAAAC CCGACAGGAC TATAAGATA CCAGGCGTTT
 CCCCTGGAA GCTCCCTCGT GCGCTCTCCT GTTCCGACCC TGCCGCTTAC CGGATACCTG TCCGCCTTTC
 TCCCTTCGGG AAGCGTGGCG CTTTCTCATA GCTCACGCTG TAGGTATCTC AGTTCGGTGT AGGTCGTTCCG
 CTCCAAGCTG GGCTGTGTGC ACGAACCCCC CGTTCAGCCC GACCGCTGCG CTTATCCGG TAACTATCGT
 CTTGAGTCCA ACCCGGTAAG ACACGACTTA TCGCCACTGG CAGCAGCCAC TGGAACAGG ATTAGCAGAG
 CGAGGTATGT AGGCGGTGCT ACAGAGTTCT TGAAGTGGTG GCCTAACTAC GGCTACACTA GAAGGACAGT
 ATTTGGTATC TCGCTCTGC TGAAGCCAGT TACCTTCGGA AAAAGAGTTG GTAGCTCTTG ATCCGGCAAAA
 CAAACCACCG CTGGTAGCGG TGGTTTTTTT GTTTGCAAGC AGCAGATTAC GCGCAGAAAA AAAGGATCTC
 AAGAAGATCC TTTGATCTTT TCTACGGGGT CTGACGCTCA GTGGAACGAA AACTCACGTT AAGGGATTTT
 GGTCATGAGA TTATCAAAA GGATCTTAC CTAGATCCTT TAAATTTAAA AATGAAGTTT TAAATCAATC
 TAAAGTATAT ATGAGTAAAC TTGGTCTGAC AGTTACCAAT GCTTAATCAG TGAGGCACCT ATCTCAGCGA
 TCTGTCTATT TCGTTCATCC ATAGTTGCC TACTCCCGT CGTGTAGATA ACTACGATAC GGGAGGGCTT
 ACCATCTGGC CCCAGTGTG CAATGATACC GCGAGACCCA CGCTCACCGG CTCCAGATTT ATCAGCAATA
 AACACGCCAG CCGGAAGGGC CGAGCGCAGA AGTGGTCTG CAACTTTATC GCGCTCCATC CAGTCTATTA
 ATTTGTTCCG GGAAGCTAGA GTAAGTAGTT CGCCAGTTAA TAGTTTGC GC AACGTTGTTG CCATTGCTAC
 AGGCATCGTG GTGTCACGCT CGTCGTTTGG TATGGCTTCA TTCAGCTCCG GTTCCAACG ATC

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_001039537](#), [NM_008501](#)

UniProt ID:

[P09056](#)

Summary:

LIF has the capacity to induce terminal differentiation in leukemic cells. Its activities include the induction of hematopoietic differentiation in normal and myeloid leukemia cells, the induction of neuronal cell differentiation, and the stimulation of acute-phase protein synthesis in hepatocytes.[UniProtKB/Swiss-Prot Function]

Product images:

