

Product datasheet for **KN417054**

AF4 (AFF1) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 linear donor
Donor DNA:	EF1a-GFP-P2A-Puro
Symbol:	AF4
Locus ID:	4299



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Components:

KN417054G1, AF4 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN417054G2, AF4 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN417054D, 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 AGTCCCCGAG AAGTTGGGG GAGGGTTCGG CAATTGAACC GGTGCCTAGA GAAGGTGGCG
 CGGGGTAAC TGGGAAAGTG ATGTCGTGTA CTGGCTCCGC CTTTTCCCG AGGGTGGGG AGAACCCTAT
 ATAAGTCAG TAGTCGCCGTA GAACTTCTT TTTCCGAACG GGTTTGCCG CAGAACACAG GTAAGTGCCG
 TGTGTGGTTC CCGCGGGCCT GGCCTCTTA CGGGTTATGG CCCTTGCGTG CCTTGAATTA CTTCCACCTG
 GCTGCAGTAC GTGATTCTG ATCCCGAGCT TCGGGTTGGA AGTGGGTGG AGAGTTCCAG GCCTTGCGCT
 TAAGGAGCCC CTTCGCCTG TGCTTGAGTT GAGGCCTGGC CTGGGCGCTG GGGCCCGCG GTGCGAATCT
 GGTGGCACCT TCGCGCCTGT CTCGCTGCTT TCGATAAGTC TCTAGCCATT TAAAATTTTT GATGACCTGC
 TGCAGCGCTT TTTTTCTGGC AAGATAGTCT TGTAAATGCG GGCCAAGATC TGCACACTGG TATTTCCGTT
 TTTGGGGCCG CGGGCGGCGA CGGGGCCCGT GCGTCCCAGC GCACATGTTC GGCAGGCGG GGCCTGCGAG
 CGCGGCCACC GAGAATCGGA CGGGGGTAGT CTAAGCTGG CCGGCCTGCT CTGGTGCTG GCCTCGCGCC
 GCCGTGTATC GCCCGCCCT GGGCGCAAG GCTGGCCCG TCGGCACCAG TTGCTGAGC GGAAAGATGG
 CCGTTCCCG GCCCTGTGC AGGGAGCTCA AAATGGAGGA CGCGGCGCTC GGGAGAGCGG GCGGGTGAAGT
 CACCCACACA AAGGAAAAGG GCCTTCCGT CCTCAGCCGT CGCTTCATGT GACTCCACGG AGTACCGGGC
 GCCCTCCAG CACCTCGATT AGTTCTGAG CTTTTGGAGT ACGTGCTTT TAGTTGGGG GGAGGGTTTT
 TATGCGATGG AGTTTCCCA CACTGAGTGG GTGGAGACTG AAGTTAGGCC AGCTTGGCAG TTGATGTAAT
 TCTCCTTGGG ATTTGCCCTT TTTGAGTTTG GATCTTGGTT CATTCTCAAG CCTCAGACAG TGGTTCAAAG
 TTTTTTCTT CCATTTCAAG TGTCGTGAAT GGAGAGCGAC GAGAGCGGCC TGCCCGCCAT GGAGATCGAG
 TGCCGCATCA CCGGCACCCT GAACGGCGTG GAGTTCGAGC TGGTGGGCGG CGGAGAGGGC ACCCCCGAGC
 AGGGCCGCAT GACCAACAAG ATGAAGAGCA CCAAAGGCGC CCTGACCTTC AGCCCTACC TGCTGAGCCA
 CGTGATGGC TACGGTTCT ACCACTTCGG CACCTACCC AGCGGCTACG AGAACCCCTT CCTGCACGCC
 ATCAACAACG GCGGCTACAC CAACACCCG ATCGAGAAGT ACGAGGACGG CGGCGTGCTG CACGTGAGCT
 TCAGTACCG CTACGAGGC GCGCGCTGA TCGGCGACTT CAAGGTGATG GGCACCGCT TCCCCGAGGA
 CAGCGTGATC TTCACCGACA AGATCATCCG CAGCAACGCC ACCGTGGAGC ACCTGCACCC CATGGCGAT
 AACGATCTGG ATGGCAGCTT CACCCGACC TTCAGCCTGC GCGACGGCGG CTAATACAGC TCCGTGGTGG
 ACAGCCACAT GCACTTCAAG AGCGCCATCC ACCCCAGCAT CCTGCAGAAC GGGGGCCCA TGTTCCCTT
 CCGCCCGTG GAGGAGGATC ACAGCAACAC CGAGTGGG ATCGTGGAGT ACCAGCACG CTTCAAGACC
 CCGGATGCG ATGCCGGTGA AGAAAGAGGA AGCGGAGCTA CTAACCTCAG CCTGCTGAAG CAGGCTGGAG
 ACGTGGAGGA GAACCCTGGA CCTATGACCG AGTACAAGC CACGGTGC CCGCCACCC GCGACGACGT
 CCCCAGGGC GTACGCACCC TCGCCGCCG GTTCGCCGAC TACCCGCCA CGGCCACAC CGTCGATCCG
 GACCGCCACA TCGAGCGGGT CACCGAGCTG CAAGAATCT TCCTCACCG CGTCGGGCTC GACATCGCA
 AGGTGTGGT CGCGGACGAC GCGCCCGCG TGGCGGTCTG GACCAGCGG GAGAGCGTCG AAGCGGGGGC
 GGTGTTCCG GAGATCGGCC CGCGCATGGC CGAGTTGAGC GGTTCGGG TGCCCGGCA GCAACAGATG
 GAAGGCCTC TGCGCCGCA CCGGCCAAG GAGCCCGCT GGTTCCTGG CACCCTCGG GTCTCGCCG
 ACCACCAGG CAAGGTCTG GGCAGCGCG TCGTGTCCC CGGAGTGGAG GCGGCCGAGC GCGCCGGGT
 GCCCGCTT CTGGAGACT CCGCGCCCG CAACCTCCC TTCTACGAG GGCTCGGCT CACCGTCACC
 GCCGACGTC AGGTGCCGA AGGACCGCG ACCTGGTGA TGACCCGCA GCCCGGTGC TGAACCTTGT
 TTATTGCAGC TTATAATGGT TACAAATAA GCAATAGCAT CACAAATTC ACAAATAAG CATTTTTTTC
 ACTGCATTCT AGTTGTGGT TGTCCAACT CATCAATGA TCTTAATAA TTCGTATAAT GTATGTATA CGAAGTTAT



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_001166693](#), [NM_001313959](#), [NM_001313960](#), [NM_005935](#)

UniProt ID: [P51825](#)

Synonyms: AF4; MLLT2; PBM1

Summary: This gene encodes a member of the AF4/ lymphoid nuclear protein related to the Fragile X E syndrome (FRAXE) family of proteins, which have been implicated in human childhood lymphoblastic leukemia, fragile chromosome X intellectual disability, and ataxia. It is the prevalent mixed-lineage leukemia fusion gene associated with spontaneous acute lymphoblastic leukemia. Members of this family have three conserved domains: an N-terminal homology domain, an AF4/ lymphoid nuclear protein domain, and a C-terminal homology domain. The protein functions as a regulator of RNA polymerase II-mediated transcription through elongation and chromatin remodeling functions. Through RNA interference screens, this gene has been shown to promote the expression of CD133, a plasma membrane glycoprotein required for leukemia cell survival. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2017]

Product images:

