

## Product datasheet for **KN505066**

### Egr1 Mouse 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:	Egr1
Locus ID:	13653



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**Components:**
**KN505066G1**, Egr1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

**KN505066G2**, Egr1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

**KN505066D**, 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)

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ATAACTTCGT ATAATGTATG CTATACGAAG TTATCGTGAG GCTCCGGTGC CCGTCAGTGG GCAGAGCGCA
CATCGCCAC AGTCCCGGAG AAGTTGGGG GAGGGGTCGG CAATTGAACC GGTGCCTAGA GAAGGTGGCG
CGGGGTAAC TGGGAAAGTG ATGTCGTGTA CTGGCTCCGC CTTTTCCCG AGGGTGGGG AGAACCGTAT
ATAAGTCAG TAGTCGCCGT GAACGTTCTT TTTCCGAACG GGTTCGCCG CAGAACACAG GTAAGTGCCG
TGTGTGGTTC CCGCGGGCCT GGCCTCTTTA CGGGTTATGG CCCTTGCGTG CCTTGAATTA CTTCCACCTG
GCTGCAGTAC GTGATTCTTG ATCCCGAGCT TCGGGTTGGA AGTGGGTGGG AGAGTTCGAG GCCTTGCGCT
TAAGGAGCCC CTTCGCCTCG TGCTTGAGTT GAGGCCTGGC CTGGGCGCTG GGGCCCGCG GTGCGAATCT
GGTGGCACCT TCGCGCCTGT CTCGCTGCTT TCGATAAGTC TCTAGCCATT TAAAATTTTT GATGACCTGC
TGCAGCGCTT TTTTCTGGC AAGATAGTCT TGTAATGCG GGCCAAGATC TGCACACTGG TATTTTCGTT
TTTGGGGCCG CGGGCGGCGA CGGGGCCCGT GCGTCCCAGC GCACATGTTC GGCAGGCGG GGCCTGCGAG
CGCGGCCACC GAGAATCGGA CGGGGGTAGT CTAAGCTGG CCGGCCTGCT CTGGTGCCTG GCCTCGCGCC
GCCGTGTATC GCCCGCCCT GGGCGGCAAG GCTGGCCCG TCGGCACCAG TTGCGTGAGC GGAAAGATGG
CCGTTCCCG GCCCTGTGC AGGGAGCTCA AAATGGAGGA CGCGCGCTC GGGAGAGCGG GCGGGTGAAGT
CACCCACACA AAGGAAAAGG GCCTTCCGT CCTCAGCCGT CGCTTCATGT GACTCCACGG AGTACCGGGC
GCCGTCAGG CACCTCGATT AGTTCTCGAG CTTTTGGAGT ACGTCGTCTT TAGTTGGGG GGAGGGGTTT
TATGCGATGG AGTTTCCCA CACTGAGTGG GTGGAGACTG AAGTTAGGCC AGCTTGACAG TTGATGTAAT
TCTCCTTGGG ATTTGCCCTT TTTGAGTTTG GATCTTGGTT CATTCTCAAG CCTCAGACAG TGGTTCAAAG
TTTTTTCTT CCATTTCAAG TGTCGTGAAT GGAGAGCGAC GAGAGCGGCC TGCCCGCCAT GGAGATCGAG
TGCCGCATCA CCGGCACCCT GAACGGCGTG GAGTTCGAGC TGGTGGGCGG CGGAGAGGGC ACCCCGAGC
AGGGCCGCAT GACCAACAAG ATGAAGAGCA CCAAAGGCGC CCTGACCTTC AGCCCTACC TGCTGAGCCA
CGTGATGGC TACGGCTTCT ACCACTTCGG CACCTACCC AGCGGCTACG AGAACCCCTT CCTGCACGCC
ATCAACAACG GCGGCTACAC CAACACCCG ATCGAGAAGT ACGAGGACGG CGGCGTGCTG CACGTGAGCT
TCAGCTACCG CTACGAGGCC GGCCGCGTGA TCGGCGACTT CAAGGTGATG GGCACCGGCT TCCCGGAGGA
CAGCGTGATC TTCACCGACA AGATCATCCG CAGCAACGCC ACCGTGGAGC ACCTGCACCC CATGGCGGAT
AACGATCTGG ATGGCAGCTT CACCCGACC TTCAGCCTGC GCGACGGCGG CTACTIONAGC TCCGTGGTGG
ACAGCCACAT GCACTTCAAG AGCGCCATCC ACCCCAGCAT CCTGCAGAAC GGGGGCCCA TGTTCCCTT
CCGCCCGTG GAGGAGGATC ACAGCAACAC CGAGTGGGG ATCGTGGAGT ACCAGCACGC CTTCAAGACC
CCGGATGCAG ATGCCGGTGA AGAAAGAGGA AGCGGAGCTA CTAACCTCAG CCTGCTGAAG CAGGCTGGAG
ACGTGGAGGA GAACCCTGGA CCTATGACCG AGTACAAGCC CACGGTGC GCCTGCCACC GCGACGACGT
CCCCAGGGCC GTACGCACCC TCGCCGCCG GTTCGCCGAC TACCCGCCA CGGCCACAC CGTCGATCCG
GACCGCCACA TCGAGCGGGT CACCGAGCTG CAAGAATCT TCCTCACGG CGTCGGGCTC GACATCGGCA
AGGTGTGGT CGCGGACGAC GGCGCCGCG TGGCGGTCTG GACCACGCG GAGAGCGTCG AAGCGGGGGC
GGTGTTCGCC GAGATCGGCC CGCGCATGGC CGAGTTGAGC GGTTCGGGC TGGCCCGCA GCAACAGATG
GAAGGCCTCC TGCGCCGCA CCGGCCAAG GAGCCCGCT GTTCTCTGG CACCCTCGG GTCTCGCCG
ACCACCAGG CAAGGTCTG GGCAGCGCG TCGTGTCCC CGGAGTGGAG GCGGCCGAGC GCGCCGGGT
GCCCGCTTC CTGGAGACT CCGCGCCCG CAACCTCCC TTCTACGAG GGCTCGGCT CACCGTCACC
GCCGACGTC AGGTGCCGA AGGACCGCG ACCTGGTGA TGACCCGCA GCCCGGTGCC TGAAACTTGT
TTATTGCAGC TTATAATGGT TACAAATAA GCAATAGCAT CACAAATTC ACAAATAAG CATTTTTTTC
ACTGCATTCT AGTTGTGGT TGTCCAACT CATCAATGA TCTTAATAAC TTCGTATAAT GTATGCTATA CGAAGTTAT
    
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<b>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_007913</a>
<b>UniProt ID:</b>	<a href="#">P08046</a>
<b>Synonyms:</b>	A530045N19Rik; egr; Egr-1; ETR103; Krox-1; Krox-24; Krox24; NGF1-A; NGFI-A; NGFIA; TIS8; Zenk; Zfp-6
<b>Summary:</b>	Transcriptional regulator (PubMed:8336701, PubMed:8703054, PubMed:15958557). Recognizes and binds to the DNA sequence 5'-GCG(T/G)GGGCG-3'(EGR-site) in the promoter region of target genes (PubMed:8703054, PubMed:15958557, PubMed:2028256, PubMed:8939742). Binds double-stranded target DNA, irrespective of the cytosine methylation status (By similarity). Regulates the transcription of numerous target genes, and thereby plays an important role in regulating the response to growth factors, DNA damage, and ischemia (PubMed:11100120, PubMed:15958557). Plays a role in the regulation of cell survival, proliferation and cell death (PubMed:15265859, PubMed:15958557). Activates expression of p53/TP53 and TGFB1, and thereby helps prevent tumor formation (PubMed:15958557). Required for normal progress through mitosis and normal proliferation of hepatocytes after partial hepatectomy (PubMed:15265859). Mediates responses to ischemia and hypoxia; regulates the expression of proteins such as IL1B and CXCL2 that are involved in inflammatory processes and development of tissue damage after ischemia (PubMed:11100120). Regulates biosynthesis of luteinizing hormone (LHB) in the pituitary (PubMed:8703054). Regulates the amplitude of the expression rhythms of clock genes: ARNTL/BMAL1, PER2 and NR1D1 in the liver via the activation of PER1 (clock repressor) transcription (PubMed:26471974). Regulates the rhythmic expression of core-clock gene ARNTL/BMAL1 in the suprachiasmatic nucleus (SCN) (PubMed:29138967).[UniProtKB/Swiss-Prot Function]

Product images:

