

## Product datasheet for **KN208247**

### E2F1 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:	E2F1
Locus ID:	1869
Components:	<b>KN208247G1</b> , E2F1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCTCCAGCGCCGGCGCGCAT <b>KN208247G2</b> , E2F1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CAGCGCGCCGGCCCCGAGCA <b>KN208247D</b> , 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**

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AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAAGCG GTTAGCTCCT TCGGTCCTCC GATCGTTGTC
AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCGGCG
ACCGAGTTGC TCTTGCCCGG CGTCAATACG GGATAATACC GCGCCACATA GCAGAATTTT AAAAGTGCTC
ATCATTGGAA AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCCTG GTTGAGATCC AGTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTCAACCAGC GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
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GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTCGC GTTAAATTTT
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CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT CACCAAATC AAGTTTTTTG
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CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACTGA CTGACTGACT GGAAGACACA

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**TTGCCACAC** **CGCAGGCGCC** **CGGCCACA** **CCAGTGC** **CGCGGCCG** **GCTCGGCCG** **CCGCCGTAC**  
**GGACCCAGG** **GACGCCGCG** **CGACAGGCC** **GCTGTGCC** **CCCGCGAGA** **CCCGGAGGG** **CGCCGTGTT**  
**GGCCTGGAG** **CGCAGGGGG** **CGGGGAGGG** **GTTGACTGAG** **GCGCCAGGC** **TGGGCGGTG** **AGAGCCGGG**  
**TTGGGCTCC** **GGGCCCCGC** **CTGGGGTGC** **GGGTGACCTC** **GGGCCGGTCC** **CTGTTTGTG** **CTCTGTGCTC**  
**TGCGCCTCAG** **CTTCTCACC** **GGAGCCTCC** **CAGCGTCGA** **CTCAGTGATA** **ATAATAGCC** **ACGTGTATTC**  
**AACTGGCGTT** **TACTGCATG** **CAGGCCTTG** **GGGACTTCA** **AGCCAGCTAA** **AACTCACAAC** **CCCCTGTGA**

GCTGTGTTGT CACTGTGCC ATCTGACGGA GGAGGAAGT AGGCCAGAG AGGGAAAGTG ACTTGCCCT  
 GGTACACAGG CTGCAGGTGG TGGGGCTGGG ATTTGAACTG AGGCCTGCTG GCTTCAGCTC AGAATTTGCA  
 TCTCGGTAGT GAGCACAGCA CGACAGTCTT CACTGACTGA CTGACTGGAA AGAGGAAGGG CTGGAAGAGG  
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 AACATACGAG CCGGAAGCAT AAAGTGTAAA GCCTGGGGTG CCTAATGAGT GAGCTAACTC ACATTAATTG  
 CGTTGCGCTC ACTGCCCGCT TTCCAGTCGG GAAACCTGTC GTGCCAGCTG CATTAAATGAA TCGGCCAACG  
 CGCGGGGAGA GCGGTTTTGC GTATTGGGCG CTCTCCGCT TCCTCGCTCA CTGACTCGCT GCGCTCGGTC  
 GTTCGGCTGC GCGGAGCGGT ATCAGCTCAC TCAAAGCGG TAATACGGTT ATCCACAGAA TCAGGGGATA  
 ACGCAGGAAA GAACATGTGA GCAAAAAGGCC AGCAAAAAGGC CAGGAACCGT AAAAAGGCCG CGTTGCTGGC  
 GTTTTTCCAT AGGCTCCGCC CCCCTGACGA GCATCACAAA AATCGACGCT CAAGTCAGAG GTGGCGAAAC  
 CCGACAGGAC TATAAGATA CCAGGCGTTT CCCCTGGAA GCTCCCTCGT GCGCTCTCCT GTTCCGACCC  
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 GACCGCTGCG CTTATCCGG TAACTATCGT CTTGAGTCCA ACCCGTAAG ACACGACTTA TCGCCACTGG  
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 TAAATTTAAA AATGAAGTTT TAAATCAATC TAAAGTATAT ATGAGTAAAC TTGGTCTGAC AGTTACCAAT  
 GCTTAATCAG TGAGGCACCT ATCTCAGCGA TCTGTCTATT TCGTTCATCC ATAGTTGCC TACTCCCCGT  
 CGTGTAGATA ACTACGATC GGGAGGGCTT ACCATCTGGC CCCAGTGTG CAATGATACC GCGAGAACCA  
 CGCTCACCGG CTCCAGATTT ATCAGCAATA AACCAGCCAG CCGGAAGGGC CGAGCGCAGA AGTGGTCTG  
 CAACTTTATC CGCCTCCATC CAGTCTATTA ATTGTTGCCG GGAAGCTAGA GTAAGTAGTT CGCCAGTTAA  
 TAGTTTGC GC AACGTTGTTG CCATTGCTAC AGGCATCGTG GTGTCACGCT CGTCGTTTGG TATGGCTTCA  
 TTCAGCTCCG GTTCCCAACG 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\\_005225](#)

**UniProt ID:**

[Q01094](#)

**Synonyms:**

E2F-1; RBAP1; RBBP3; RBP3

**Summary:**

The protein encoded by this gene is a member of the E2F family of transcription factors. The E2F family plays a crucial role in the control of cell cycle and action of tumor suppressor proteins and is also a target of the transforming proteins of small DNA tumor viruses. The E2F proteins contain several evolutionally conserved domains found in most members of the family. These domains include a DNA binding domain, a dimerization domain which determines interaction with the differentiation regulated transcription factor proteins (DP), a transactivation domain enriched in acidic amino acids, and a tumor suppressor protein association domain which is embedded within the transactivation domain. This protein and another 2 members, E2F2 and E2F3, have an additional cyclin binding domain. This protein binds preferentially to retinoblastoma protein pRB in a cell-cycle dependent manner. It can mediate both cell proliferation and p53-dependent/independent apoptosis. [provided by RefSeq, Jul 2008]

**Product images:**
