

Product datasheet for **KN427131**

CASTOR2 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:	CASTOR2
Locus ID:	729438



Components:

KN427131G1, CASTOR2 gRNA vector 1 in pCas-Guide CRISPR vector (GEI00002)

KN427131G2, CASTOR2 gRNA vector 2 in pCas-Guide CRISPR vector (GEI00002)

KN427131D, 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 GAGGGGTCGG CAATTGAACC GGTGCCTAGA GAAGGTGGCG CGGGGTAAC TGGGAAAGTG
ATGTCGTGTA CTGGCTCCGC CTTTTTCCCG AGGGTGGGGG AGAACCGTAT ATAAGTCGAG TAGTCGCCGT GAACGTTCTT
TTTCGCAACG GGTTCGCCGC CAGAACACAG GTAAGTGCCG TGTGTGGTTC CCGCGGGCCT GGCCTCTTTA CGGGTTATGG
CCCTTGCGTG CCTTGAATTA CTTCCACCTG GCTGCAGTAC GTGATTCTTG ATCCCGAGCT TCGGGTTGGA AGTGGGTGGG
AGAGTTCGAG GCCTTGCGCT TAAGGAGCCC CTTGCGCTCG TGCTTGAGTT GAGGCTGGC CTGGGCGCTG GGGCCGCCGC
GTGCGAATCT GGTGGCACCT TCGCGCTGT CTCGCTGCTT TCGATAAGTC TCTAGCCATT TAAATTTTTT GATGACCTGC
TGCGACGCTT TTTTCTGGC AAGATAGTCT TGTAATGCG GGCCAAAGATC TGCACACTGG TATTTCGGTT TTTGGGGCCG
CGGGCGGCGA CGGGGCCCGT GCGTCCCAGC GCACATGTTT GCGGAGGCGG GGCTGCGAG CGCGGCCACC GAGAATCGGA
CGGGGGTAGT CTAAGCTGG 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 GATCTTGGT 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 CACCTACCCC
AGCGGCTACG AGAACCCTT CCTGCACGCC ATCAACAACG GCGGCTACAC CAACACCCCG ATCGAGAAGT ACGAGGACGG
CGGCGTGCTG CACGTGAGCT TCAGCTACCG CTACGAGGCC GGCCGCGTGA TCGCGCACTT CAAGGTGATG GGCACCGGCT
TCCCCGAGGA CAGCGTGATC TTCACCGACA AGATCATCCG CAGCAACGCC ACCGTGGAGC ACCTGCACCC CATGGGCGAT
AACGATCTGG ATGGCAGCTT CACCCGCACC TTCAGCCTGC GCGACGGCGG CTAACAGC TCCGTGGTGG ACAGCCACAT
GCATTTCAAG AGCGCCATCC ACCCCAGCAT CCTGCAGAAC GGGGGCCCCA TGTTGCGCTT CCGCCGCGTG GAGGAGGATC
ACAGCAACAC CGAGCTGGG ATCGTGAGT ACCAGCACGC CTTCAAGACC CCGGATGAG ATGCCGGTGA AGAAAGAGGA
AGCGGAGCTA CTAACCTCAG CCTGCTGAAG CAGGCTGGAG ACGTGGAGGA GAACCTGGA CCTATGACCG AGTACAAGCC
CACGGTGCGC CTCGCCACCC GCGACGAGT CCCCAGGGCC GTACGCACCC TCGCCGCGCG GTTCGCCGAC TACCCGCCA
CGCGCCACAC CGTCGATCCG GACCGCCACA TCGAGCGGT CACCGAGCTG CAAGAACTCT TCCTCACGCG CGTCGGGCTC
GACATCGGCA AGGTGTGGT CGCGGACGAC GCGCGCGCGG TGCGGTCTG GACCACGCCG GAGAGCGTCG AAGCGGGGGC
GGTGTTCCGC GAGATCGGCC CGCGCATGGC CGAGTTGAGC GGTTCGCGC TGCGCGCGCA GCAACAGATG GAAGGCCTCC
TGGCGCCGCA CCGGCCAAG GAGCCCGCT GGTTCCTGCG CACCGTCGCG GTCTCGCCCG ACCACAGGG CAAGGGTCTG
GGCAGCGCCG TCGTGCTCCC CGGAGTGGAG GCGGCCGAGC GCGCCGGGT GCCCGCTTC CTGGAGACCT CCGCGCCCCG
CAACCTCCCC TTCTACGAGC GGCTCGGCTT CACCGTCACC GCGGACGTCG AGGTGCCCGA AGGACCGCGC ACCTGGTGCA
TGACCCGCAA GCCCGGTGCC TGAAACTTGT TTATTGCAGC TTATAATGGT TACAAATAAA GCAATAGCAT CACAAATTC
ACAAATAAAG CATTTTTTTC ACTGCATTCT AGTTGTGGTT TGTCCAACT CATCAATGTA TCTTAATAAC TTCGTATAAT
GTATGCTATA CGAAGTTAT



OTI 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:	<u>NM_001145064</u>
UniProt ID:	<u>A6NHX0</u>
Synonyms:	CASTOR2; GATSL1
Summary:	Functions as a negative regulator of the TORC1 signaling pathway through the GATOR complex. As part of homodimers or heterodimers with CASTOR1, directly binds and inhibits the GATOR subcomplex GATOR2 and thereby mTORC1. Does not directly bind arginine, but binding of arginine to CASTOR1 disrupts the interaction of CASTOR2-containing heterodimers with GATOR2 which can in turn activate mTORC1 and the TORC1 signaling pathway.[UniProtKB/Swiss-Prot Function]

Product images:

