

Product datasheet for **KN418027**

PAN3 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:	PAN3
Locus ID:	255967



[View online »](#)

Components:
KN418027G1, PAN3 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN418027G2, PAN3 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN418027D, 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 AGTCCCGAG AAGTTGGGG GAGGGGTGCG CAATTGAACC GGTGCCTAGA GAAGGTGGCG
 CGGGGTAAAC TGGGAAAGTG ATGTCGTGTA CTGGCTCCGC CTTTTCCCG AGGGTGGGG AGAACCGTAT
 ATAAGTCAG TAGTCGCCGT GAACGTTCTT TTTGCAACG GGTTCGCCG CAGAACACAG GTAAGTGCCG
 TGTGTGGTTC CCGCGGGCCT GGCCTCTTTA CGGGTTATGG CCCTTGCGTG CCTTGAATTA CTTCCACCTG
 GCTGCAGTAC GTGATTCTTG ATCCGAGCT TCGGGTTGGA AGTGGGTGGG AGAGTTCGAG GCCTTGCGCT
 TAAGGAGCCC CTTCGCCTCG TGCTTGAGTT GAGGCCTGGC CTGGGCGCTG GGGCCGCCG GTGCGAATCT
 GGTGGCACCT TCGCGCCTGT CTCGCTGCTT TCGATAAGTC TCTAGCCATT TAAAATTTT GATGACCTGC
 TCGCAGCCTT TTTTCTGGC AAGATAGTCT TGTAAATGCG GGCCAAGATC TGCACACTGG TATTTCCGTT
 TTTGGGGCCG CGGGCGGCGA CGGGGCCCGT GCGTCCCAGC GCACATGTTC GGCAGGCGG GGCCTGCGAG
 CGCGGCCACC GAGAATCGGA CGGGGGTAGT CTCAAGCTGG CCGGCCTGCT CTGGTGCCTG GCCTCGCGCC
 GCCGTGTATC GCCCGGCCCT GGGCGGCAAG GCTGGCCCGG TCGGCACCAAG TTGCGTGAGC GGAAAGATGG
 CCGCTTCCCG GCCCTGCTGC AGGGAGCTCA AAATGGAGGA CGCGGCGCTC GGGAGAGCGG GCGGGTGAGT
 CACCCACACA AAGGAAAAGG GCCTTCCCGT CCTCAGCCGT CGCTTCATGT GACTCCACGG AGTACCGGGC
 GCCGTCCAGG CACCTCGATT AGTTCTCGAG CTTTGGAGT ACGTCGCTT TAGGTTGGGG GGAGGGGTTT
 TATGCGATGG AGTTTCCCCA CACTGAGTGG GTGGAGACTG AAGTTAGGCC AGCTTGGCAG TTGATGTAAT
 TCTCCTTGGG ATTTGCCCTT TTTGAGTTTG GATCTTGGTT CATTCTCAAG CCTCAGACAG TGGTTCAAAG
 TTTTTTCTT CCATTTCAAG TGTCGTGAAT GGAGAGCGAC GAGAGCGGCC TGCCCGCCAT GGAGATCGAG
 TGCCGCATCA CCGGCACCTT GAACGGCGTG GAGTTCGAGC TGGTGGGCGG CGGAGAGGGC ACCCCGAGC
 AGGGCCGCAT GACCAACAAG ATGAAGAGCA CCAAAGGCGC CCTGACCTTC AGCCCTACC TGCTGAGCCA
 CGTGATGGG TACGGTTCTT ACCACTTCGG CACCTACCCC AGCGGCTACG AGAACCCCTT CCTGCACGCC
 ATCAACAACG GCGGCTACAC CAACACCCG ATCGAGAAGT ACGAGGACGG CGGCGTGCTG CACGTGAGCT
 TCAGCTACCG CTACGAGGCC GGCCGCGTGA TCGGCGACTT CAAGGTGATG GGCACCGGCT TCCCCGAGGA
 CAGCGTGATC TTCACCGACA AGATCATCCG CAGCAACGCC ACCGTGGAGC ACCTGCACCC CATGGCGGAT
 AACGATCTGG ATGGCAGCTT CACCCGACCC TTCAGCCTGC GCGACGGCGG CTAATACAGC TCCGTGGTGG
 ACAGCCACAT GCACTTCAAG AGCGCCATCC ACCCCAGCAT CCTGCAGAAC GGGGGCCCCA TGTTCCGCTT
 CCGCCGCGTG GAGGAGGATC ACAGCAACAC CGAGCTGGGC ATCGTGAGT ACCAGCACGC CTTCAAGACC
 CCGGATGCAG ATGCCGTTGA AGAAAGAGGA AGCGGAGCTA CTAAGTTCAG CCTGCTGAAG CAGGCTGGAG
 ACGTGGAGGA GAACCTTGA CCTATGACCG AGTACAAGCC CACGGTGCGC CTCGCCACCC GCGACGACGT
 CCCAGGGCC GTACGCACCC TCGCCGCCG GTTCGCCGAC TACCCGCCA CGGCCACAC CGTCGATCCG
 GACCGCCACA TCGAGCGGGT CACCGAGCTG CAAGAACTCT TCCTCACGCG CGTCGGGCTC GACATCGGCA
 AGGTGTGGT GCGGACGAC GCGCCCGCG TGGCGGTCTG GACCACGCC GAGAGCGTGC AAGCGGGGGC
 GGTGTTCCGC GAGATCGGCC CGCGCATGGC CGAGTTGAGC GGTTCGCCG TGCCCGCGCA GCAACAGATG
 GAAGGCCTCC TGGCGCCGCA CCGGCCCAAG GAGCCCGCT GGTTCCTGGC CACCGTCGGC GTCTCGCCCG
 ACCACCAGG CAAGGTCTG GGCAGCGCC TCGTGCTCC CGAGTGAGG GCGGCCGAGC GCGCCGGGT
 GCCCGCCTT CTGGAGACCT CCGCGCCCC CAACCTCCC TTCTACGAG GGCTCGGCTT CACCGTCACC
 GCCGACGTC AGGTGCCGA AGGACCGCG ACCTGGTGCA TGACCCGCAA GCCCGGTGCC TGAACTTGT
 TTATTGCAGC TTATAATGGT TACAAATAA GCAATAGCAT CACAAATTTT ACAAATAAAG CATTTTTTTC
 ACTGCATTCT AGTTGTGGT TGTCCAACT CATCAATGTA TCTTAATAA TTCGTATAAT GTATGCTATA CGAAGTTAT



RefSeq:	<u>NM_175854</u>
UniProt ID:	<u>Q58A45</u>
Synonyms:	OTTHUMP00000018179; OTTHUMP00000018180; OTTHUMP00000042400; PABP-dependent pol; PABP1-dependent poly A-specific ribonuclease subunit PAN3; PAN3 poly(A) specific ribonuclease subunit homolog (S. cerevisiae); PAN3 polyA specific ribonuclease subunit homolog
Summary:	Regulatory subunit of the poly(A)-nuclease (PAN) deadenylation complex, one of two cytoplasmic mRNA deadenylases involved in general and miRNA-mediated mRNA turnover. PAN specifically shortens poly(A) tails of RNA and the activity is stimulated by poly(A)-binding protein (PABP). PAN deadenylation is followed by rapid degradation of the shortened mRNA tails by the CCR4-NOT complex. Deadenylated mRNAs are then degraded by two alternative mechanisms, namely exosome-mediated 3'-5' exonucleolytic degradation, or deadenylation-dependent mRNA decapping and subsequent 5'-3' exonucleolytic degradation by XRN1. PAN3 acts as a positive regulator for PAN activity, recruiting the catalytic subunit PAN2 to mRNA via its interaction with RNA and PABP, and to miRNA targets via its interaction with GW182 family proteins.[UniProtKB/Swiss-Prot Function]

Product images:

