OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for KN217669RB

MRP5 (ABCC5) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control

Donor DNA: RFP-BSD

Symbol: MRP5

Locus ID: 10057

Components: **KN217669G1**, MRP5 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GTCCTGGGTATAGAAGTGTG
KN217669G2, MRP5 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCTTAGGAAAGGAAACTGAC
KN217669RBD, donor DNA containing left and right homologous arms and RFP-BSD functional cassette.
Homologous arm and RFP-BSD sequences:
pUC vector backbone in gray; Left arm sequence in blue; RFP-BSD in green; Right arm in violet

```
TTAACTGGAT AACTTCATGG AGCTTTAAAA TAACACCAGC TAACCCATTA GTTAATTATA AAAAGGCAGA
GATGGAATAT ATCATTGGTA GAATAAGTGT TTGGTAAGTT TTTATTTAGT AAAATTTAGT AGAAGAAATG
ATGTCCACTT TAAAATTGTG GAGTTTTTAA TACTTGGGAC AAACTGAAAT TGTTTCTAGA AAGTCTTTAA
AAAAAAAACC AACCTTTCTA TTGTATACAC TGGATTTGAG CTTAGTTGAA GAGAATGGGT GTCTCTTTAC
TAGTGTGTTT ACTGTTTCTA ATTTTTTTTC CCTTAGAGTT GGGAGAAGGT AATTTTTCTT GATTCTCTTA
TACTGAATCT TTTTCTTTAA AAAAATGAAA TCAAAATCTT TGAACTTTTT TTGAAAATTA ATTTTTGTAG
CTATAACAGT AGAAAGCTTT AGTACTTTTG CCTTTTTTTT TTTTTTCCTA TTTTTAAGGC ACTTGAGCTT
ATGGTTAAGT ACTGTTTAGG AAATAATCTA TTTCTTGATG AATTTTTAAT TTCAGGAATT CTGATGTGAA
ACTAACAGTC TGTGAGCCCT GGAACCTCCA CTCAGAGAAG GTTGTACTAA AACACATCTT TTTTCGTATA
ATGGGTAATT TAGAAACTTA TTTTTTGGCC GGGCGCGGTG GCTCACGCCT ATAAACCCAG CACTTTGGGA
GGCTGAGGCG GGTGGATCAT CTGAGGTCAG GAGTTCGAGA CCAGCCTGAC CAACATGGTG AAAACCTGTC
TCTACTAAAA GTACAAAAAT TAGCCAGGCG TGGTGGCGGG CGCCTATAAT CCCAGATACT TGCGAGGCTG
AGGCACGAGA ATCGCTTGAA CCCAAGAGGC GGAGGTTGCA GTGAGCTGGG ATCATGCCAC TGCACTCCAG
CCTGGGCGAT AGAGCGAGAC TCAGTCTCAA AAAAAAATGT GTTTTTCTTT ATTGGCTTTA GGTTACTGTT
AAGAATTTAT GGTTATTGAT AAGTCTCTGG TCCATAGTAA GCACTCAATA AGTGGAAGAG AGGCTGGCTG
TCACCCTCTC ACCCGGTCTG TTCTGAGCAT TCTCCTCTTT TTCACTTTTA TTCTATGTTG GTGCCTTCTG
AAAAGGCTAT ACTTAACAGA AGACAACTTA TTGAGGGGGA GGGGGTCATG GGGTCAATGA CAGGGAATAT
AAAGCCAATT
```

GE100003, scramble sequence in pCas-Guide vector

View online »

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.

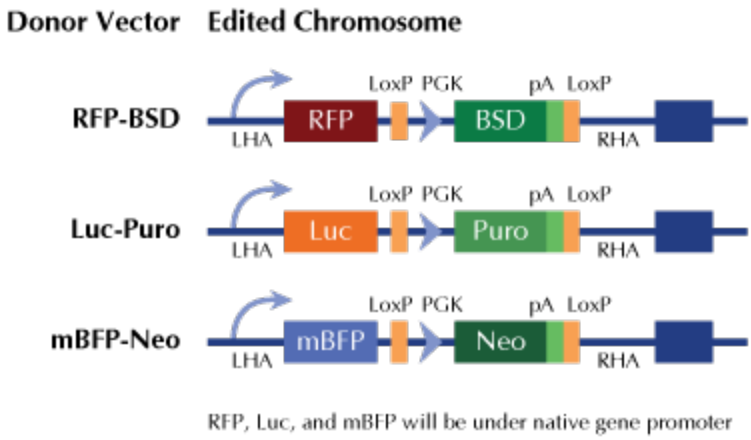
RefSeq: NM_001023587, NM_001320032, NM_005688, NR_135125

UniProt ID: O15440

Synonyms: ABC33; EST277145; MOAT-C; MOATC; MRP5; pABC11; SMRP

Summary: The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MRP subfamily which is involved in multi-drug resistance. This protein functions in the cellular export of its substrate, cyclic nucleotides. This export contributes to the degradation of phosphodiesterases and possibly an elimination pathway for cyclic nucleotides. Studies show that this protein provides resistance to thiopurine anticancer drugs, 6-mercatopurine and thioguanine, and the anti-HIV drug 9-(2-phosphonylmethoxyethyl)adenine. This protein may be involved in resistance to thiopurines in acute lymphoblastic leukemia and antiretroviral nucleoside analogs in HIV-infected patients. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2016]

Product images:



RFP, Luc, and mBFP will be under native gene promoter