

## Product datasheet for **KN217669**

### MRP5 (ABCC5) 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:       | MRP5   |
| Locus ID:     | 10057  |
| Components:   | <b>KN217669G1</b> , MRP5 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GTCCTGGGTATAGAAGTGTG<br><b>KN217669G2</b> , MRP5 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCTTAGGAAAGGAAACTGAC<br><b>KN217669D</b> , donor DNA containing left and right homologous arms and GFP-puro functional cassette.<br><b>GE100003</b> , 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:       | <a href="#">NM_001023587</a> , <a href="#">NM_001320032</a> , <a href="#">NM_005688</a> , <a href="#">NR_135125</a>  |
| UniProt ID:   | <a href="#">O15440</a>   |
| Synonyms:     | ABC33; EST277145; MOAT-C; MOATC; MRP5; pABC11; SMRP  |



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**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-mercaptopurine 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:**

