

Product datasheet for KN216080RB

OriGene Technologies, Inc.

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P Glycoprotein (ABCB1) 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: P Glycoprotein

Locus ID: 5243

Components: KN216080G1, P Glycoprotein gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN216080G2, P Glycoprotein gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN216080RBD**, donor DNA containing left and right homologous arms and RFP-BSD

functional cassette.

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 000927, NM 001348944, NM 001348945, NM 001348946

UniProt ID: <u>P08183</u>

Synonyms: ABC20; CD243; CLCS; GP170; MDR1; P-GP; PGY1

Summary: The membrane-associated 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 MDR/TAP subfamily. Members of the MDR/TAP subfamily are involved in multidrug resistance. The protein encoded by this gene is an ATP-dependent drug efflux pump for xenobiotic compounds with broad substrate specificity. It is responsible for decreased drug accumulation in multidrug-resistant cells and often mediates the development of resistance

to anticancer drugs. This protein also functions as a transporter in the blood-brain barrier. Mutations in this gene are associated with colchicine resistance and Inflammatory bowel disease 13. Alternative splicing and the use of alternative promoters results in multiple

transcript variants. [provided by RefSeq, Feb 2017]





Product images:

Donor Vector Edited Chromosome



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