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Product datasheet for KN205640

ABCG2 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: ABCG2

Locus ID: 9429

Components: **KN205640G1**, ABCG2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGTCATTGGAAGCTGTCGCG
KN205640G2, ABCG2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AGTAAATGCCTTCAGGTCAT
KN205640D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.
Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet

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TCGTTTGGTA TGGCTTCATT CAGCTCCGGT TCCCAACGAT C

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.

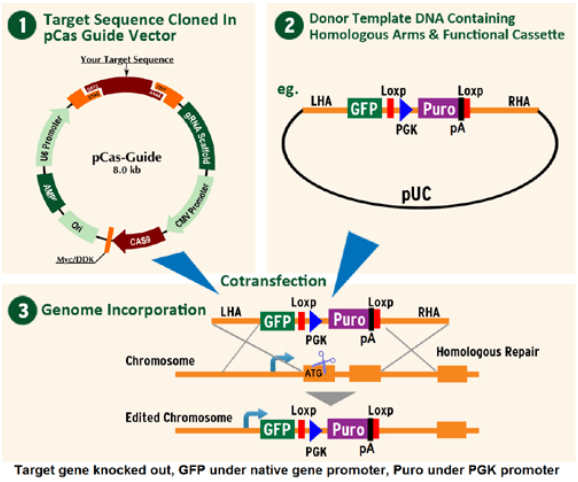
RefSeq: NM_001257386, NM_004827, NM_001348985, NM_001348986, NM_001348987, NM_001348988, NM_001348989

UniProt ID: Q9UNQ0

Synonyms: ABC15; ABCP; BCRP; BCRP1; BMDP; CD338; CDw338; EST157481; GOUT1; MRX; MXR; MXR1; UAQTL1

Summary: The membrane-associated protein encoded by this gene is included in 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 White subfamily. Alternatively referred to as a breast cancer resistance protein, this protein functions as a xenobiotic transporter which may play a major role in multi-drug resistance. It likely serves as a cellular defense mechanism in response to mitoxantrone and anthracycline exposure. Significant expression of this protein has been observed in the placenta, which may suggest a potential role for this molecule in placenta tissue. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2012]

Product images:



Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter