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Product datasheet for KN201607LP

MLH1 Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control
Donor DNA:	Luciferase-Puro
Symbol:	MLH1
Locus ID:	4292
Components:	**KN201607G1**, MLH1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) **KN201607G2**, MLH1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN201607LPD**, donor DNA containing left and right homologous arms and Luciferase-Puro 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_000249, NM_001167617, NM_001167618, NM_001167619, NM_001258271, NM_001258273, NM_001258274, NM_001354615, NM_001354616, NM_001354617, NM_001354618, NM_001354619, NM_001354620, NM_001354621, NM_001354622, NM_001354623, NM_001354624, NM_001354625, NM_001354626, NM_001354627, NM_001354628, NM_001354629, NM_001354630
UniProt ID:	P40692
Synonyms:	COCA2; FCC2; hMLH1; HNPCC; HNPCC2
Summary:	The protein encoded by this gene can heterodimerize with mismatch repair endonuclease PMS2 to form MutL alpha, part of the DNA mismatch repair system. When MutL alpha is bound by MutS beta and some accessory proteins, the PMS2 subunit of MutL alpha introduces a single-strand break near DNA mismatches, providing an entry point for exonuclease degradation. The encoded protein is also involved in DNA damage signaling and can heterodimerize with DNA mismatch repair protein MLH3 to form MutL gamma, which is involved in meiosis. This gene was identified as a locus frequently mutated in hereditary nonpolyposis colon cancer (HNPCC). [provided by RefSeq, Aug 2017]

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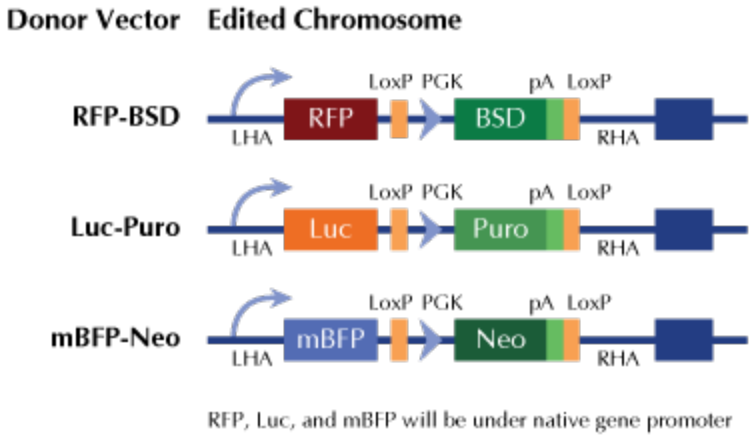
Product images:



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