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Product datasheet for KN215176

ATRX 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: ATRX

Locus ID: 546

Components: **KN215176G1**, ATRX gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TAAAACGCAACCCCGTCTCA
KN215176G2, ATRX gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: ACCGTCTGAGTCGGGTGTTT
KN215176D, 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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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.

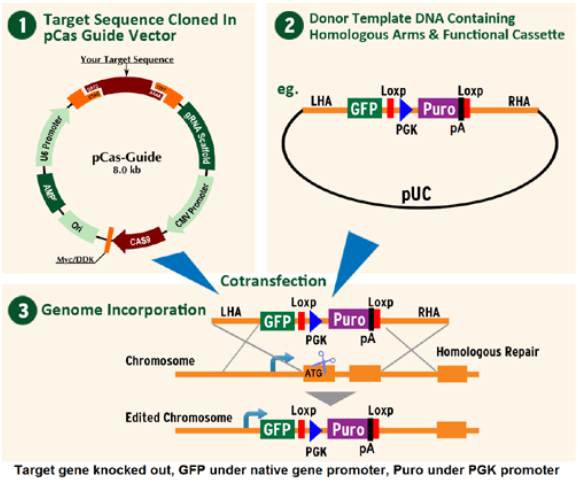
RefSeq: NM_000489, NM_138270, NM_138271

UniProt ID: P46100

Synonyms: ATR2; JMS; MRX52; MRXHF1; RAD54; RAD54L; SFM1; SHS; XH2; XNP; ZNF-HX

Summary: The protein encoded by this gene contains an ATPase/helicase domain, and thus it belongs to the SWI/SNF family of chromatin remodeling proteins. This protein is found to undergo cell cycle-dependent phosphorylation, which regulates its nuclear matrix and chromatin association, and suggests its involvement in the gene regulation at interphase and chromosomal segregation in mitosis. Mutations in this gene are associated with X-linked syndromes exhibiting cognitive disabilities as well as alpha-thalassemia (ATRX) syndrome. These mutations have been shown to cause diverse changes in the pattern of DNA methylation, which may provide a link between chromatin remodeling, DNA methylation, and gene expression in developmental processes. Multiple alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2017]

Product images:



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