

Product datasheet for KN215176LP

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

ATRX 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: ATRX Locus ID: 546

Components: KN215176G1, ATRX gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN215176G2, ATRX gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN215176LPD, 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: <u>NM 000489</u>, <u>NM 138270</u>, <u>NM 138271</u>

UniProt ID: <u>P46100</u>

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

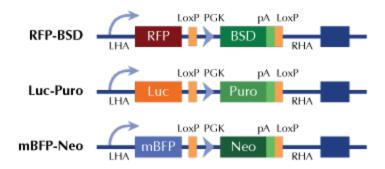
encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2017]





Product images:

Donor Vector Edited Chromosome



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