

Product datasheet for KN202382LP

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

MECP2 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: MECP2 Locus ID: 4204

Components: KN202382G1, MECP2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN202382G2, MECP2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN202382LPD, 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 001110792, NM 001316337, NM 004992, NM 001369391, NM 001369394,

NM 001369392, NM 001369393

UniProt ID: P51608

Synonyms: AUTSX3; MRX16; MRX79; MRXS13; MRXSL; PPMX; RS; RTS; RTT

Summary: DNA methylation is the major modification of eukaryotic genomes and plays an essential role

in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of

binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress

transcription from methylated gene promoters. In contrast to other MBD family members, MECP2 is X-linked and subject to X inactivation. MECP2 is dispensible in stem cells, but is essential for embryonic development. MECP2 gene mutations are the cause of most cases of Rett syndrome, a progressive neurologic developmental disorder and one of the most

common causes of cognitive disability in females. Alternative splicing results in multiple

transcript variants encoding different isoforms. [provided by RefSeq, Oct 2015]





Product images:

Donor Vector Edited Chromosome



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