

Product datasheet for **KN209151LP**

Dystrophia myotonica protein kinase (DMPK) 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:	Dystrophia myotonica protein kinase
Locus ID:	1760
Components:	KN209151G1 , Dystrophia myotonica protein kinase gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) KN209151G2 , Dystrophia myotonica protein kinase gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) KN209151LPD , 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_001081560 , NM_001081562 , NM_001081563 , NM_001288764 , NM_001288765 , NM_001288766 , NM_004409
UniProt ID:	Q09013
Synonyms:	DM; DM1; DM1PK; DMK; MDPK; MT-PK



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Summary:

The protein encoded by this gene is a serine-threonine kinase that is closely related to other kinases that interact with members of the Rho family of small GTPases. Substrates for this enzyme include myogenin, the beta-subunit of the L-type calcium channels, and phospholemman. The 3' untranslated region of this gene contains 5-38 copies of a CTG trinucleotide repeat. Expansion of this unstable motif to 50-5,000 copies causes myotonic dystrophy type I, which increases in severity with increasing repeat element copy number. Repeat expansion is associated with condensation of local chromatin structure that disrupts the expression of genes in this region. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of some of these variants has not been determined. [provided by RefSeq, Jul 2016]

Product images:
