

## Product datasheet for **TL320323**

### Dystrophia myotonica protein kinase (DMPK) Human shRNA Plasmid Kit (Locus ID 1760)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Dystrophia myotonica protein kinase (DMPK) Human shRNA Plasmid Kit (Locus ID 1760)
Locus ID:	1760
Synonyms:	DM; DM1; DM1PK; DMK; MDPK; MT-PK
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	DMPK - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 1760). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_001081560</a> , <a href="#">NM_001081562</a> , <a href="#">NM_001081563</a> , <a href="#">NM_001288764</a> , <a href="#">NM_001288765</a> , <a href="#">NM_001288766</a> , <a href="#">NM_004409</a> , <a href="#">NM_004409.2</a> , <a href="#">NM_004409.3</a> , <a href="#">NM_004409.4</a> , <a href="#">NM_001081563.1</a> , <a href="#">NM_001081563.2</a> , <a href="#">NM_001081562.1</a> , <a href="#">NM_001081562.2</a> , <a href="#">NM_001081560.1</a> , <a href="#">NM_001081560.2</a> , <a href="#">NM_001288766.1</a> , <a href="#">NM_001288765.1</a> , <a href="#">NM_001288764.1</a> , <a href="#">BC062553</a> , <a href="#">BC062553.1</a> , <a href="#">BC026328</a> , <a href="#">NM_001288766.2</a> , <a href="#">NM_001081562.3</a> , <a href="#">NM_004409.5</a> , <a href="#">NM_001288764.2</a> , <a href="#">NM_001081560.3</a>
UniProt ID:	<a href="#">Q09013</a>
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]



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- shRNA Design:** These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).
- Performance Guaranteed:** OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.
- For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).