

### **Product datasheet for RG223643**

#### OriGene Technologies, Inc.

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## Dystrophia myotonica protein kinase (DMPK) (NM\_001081562) Human Tagged ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** Dystrophia myotonica protein kinase (DMPK) (NM\_001081562) Human Tagged ORF Clone

Tag: TurboGFP

**Symbol:** Dystrophia myotonica protein kinase

Synonyms: DM; DM1; DM1PK; DMK; MDPK; MT-PK

Mammalian Cell Neomycin

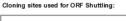
Selection:

**Vector:** pCMV6-AC-GFP (PS100010)

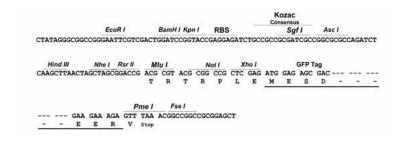
E. coli Selection: Ampicillin (100 ug/mL)

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 







**ACCN:** NM\_001081562

ORF Size: 1875 bp





# Dystrophia myotonica protein kinase (DMPK) (NM\_001081562) Human Tagged ORF Clone – RG223643

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube

containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:** 1. Centrifuge at 5,000xg for 5min.

2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.

3. Close the tube and incubate for 10 minutes at room temperature.

4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of

shipping when stored at -20°C.

**RefSeq:** <u>NM 001081562.3</u>

 RefSeq Size:
 2873 bp

 RefSeq ORF:
 1878 bp

 Locus ID:
 1760

 UniProt ID:
 Q09013

Cytogenetics: 19q13.32

**Protein Families:** Druggable Genome, Protein Kinase

**Gene Summary:** The protein encoded by this gene is a serine-threonine kinase that is closely related to other

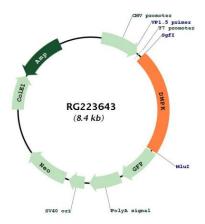
kinases that interact with members of the Rho family of small GTPases. Substrates for this

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:**



Circular map for RG223643