

## ARG10650 anti-DMPK antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes DMPK
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Cow, Dog, Gpig, Hrs
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	DMPK
Species	Human
Immunogen	Synthetic peptide around the center region of Human DMPK.
Conjugation	Un-conjugated
Alternate Names	Myotonin-protein kinase; DM; MDPK; DM1 protein kinase; MT-PK; DMK; DM-kinase; DM1; DMPK; EC 2.7.11.1; Myotonic dystrophy protein kinase; DM1PK

### Application Instructions

Predict Reactivity Note	Cow: 100%; Dog: 100%; Guinea Pig: 100%; Horse: 93%; Human: 100%; Mouse: 100%; Rat: 100%						
Application table	<table> <tr> <th>Application</th><th>Dilution</th></tr> <tr> <td>IHC-P</td><td>5 µg/ml</td></tr> <tr> <td>WB</td><td>0.2 - 1 µg/ml</td></tr> </table>	Application	Dilution	IHC-P	5 µg/ml	WB	0.2 - 1 µg/ml
Application	Dilution						
IHC-P	5 µg/ml						
WB	0.2 - 1 µg/ml						
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.						

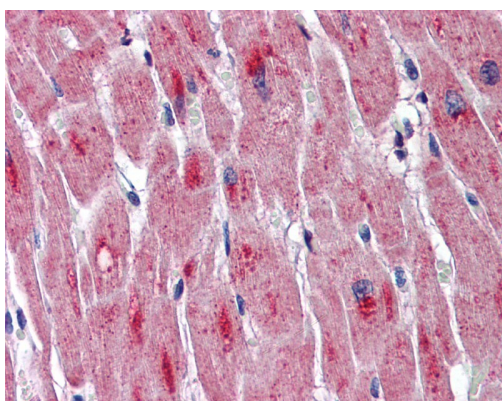
### Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.09% (w/v) Sodium azide and 2% Sucrose.
Preservative	0.09% (w/v) Sodium azide
Stabilizer	2% Sucrose
Concentration	0.5 - 1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

## Bioinformation

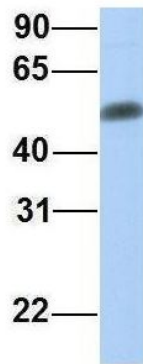
Database links	<a href="#">GeneID: 1760 Human</a> <a href="#">Swiss-port # Q09013 Human</a>
Gene Symbol	DMPK
Gene Full Name	dystrophia myotonica-protein kinase
Background	The protein encoded by this gene is a serine-threonine kinase that is closely related to other kinases that interact with members 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 5-37 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 2008]
Function	Non-receptor serine/threonine protein kinase which is necessary for the maintenance of skeletal muscle structure and function. May play a role in myocyte differentiation and survival by regulating the integrity of the nuclear envelope and the expression of muscle-specific genes. May also phosphorylate PPP1R12A and inhibit the myosin phosphatase activity to regulate myosin phosphorylation. Also critical to the modulation of cardiac contractility and to the maintenance of proper cardiac conduction activity probably through the regulation of cellular calcium homeostasis. Phosphorylates PLN, a regulator of calcium pumps and may regulate sarcoplasmic reticulum calcium uptake in myocytes. May also phosphorylate FXD1/PLM which is able to induce chloride currents. May also play a role in synaptic plasticity. [UniProt]
Calculated Mw	69 kDa
PTM	Phosphorylated. Autophosphorylates. Phosphorylation by RAF1 may result in activation of DMPK. Proteolytic processing of the C-terminus may remove the transmembrane domain and release the kinase from membranes stimulating its activity.

## Images



ARG10650 anti-DMPK antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human heart tissue stained with ARG10650 anti-DMPK antibody at 5 µg/ml dilution.



ARG10650 anti-DMPK antibody WB image

Western blot: Human fetal muscle lysate stained with ARG10650 anti-DMPK antibody at 1 µg/ml dilution.