

## Datasheet for ABIN7553725 DMPK Protein (AA 1-629) (His tag)



Overview

Quantity:	1 mg
Target:	DMPK
Protein Characteristics:	AA 1-629
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DMPK protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant DMPK Protein expressed in mammalian cells.
Sequence:	MSAEVRLRRL QQLVLDPGFL GLEPLLDLLL GVHQELGASE LAQDKYVADF LQWAEPIVVR
	LKEVRLQRDD FEILKVIGRG AFSEVAVVKM KQTGQVYAMK IMNKWDMLKR GEVSCFREER
	DVLVNGDRRW ITQLHFAFQD ENYLYLVMEY YVGGDLLTLL SKFGERIPAE MARFYLAEIV
	MAIDSVHRLG YVHRDIKPDN ILLDRCGHIR LADFGSCLKL RADGTVRSLV AVGTPDYLSP
	EILQAVGGGP GTGSYGPECD WWALGVFAYE MFYGQTPFYA DSTAETYGKI VHYKEHLSLP
	LVDEGVPEEA RDFIQRLLCP PETRLGRGGA GDFRTHPFFF GLDWDGLRDS VPPFTPDFEG
	ATDTCNFDLV EDGLTAMVSG GGETLSDIRE GAPLGVHLPF VGYSYSCMAL RDSEVPGPTP
	MELEAEQLLE PHVQAPSLEP SVSPQDETAE VAVPAAVPAA EAEAEVTLRE LQEALEEEVL
	TRQSLSREME AIRTDNQNFA SQLREAEARN RDLEAHVRQL QERMELLQAE GATAVTGVPS
	PRATDPPSHL DGPPAVAVGQ CPLVGPGPMH RRHLLLPARV PRPGLSEALS LLLFAVVLSR
	AAALGCIGLV AHAGQLTAVW RRPGAARAP Sequence without tag. The proposed Purification-
	Tag is based on experiences with the expression system, a different complexity of the

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	protein could make another tag necessary. In case you have a special request, please contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	<ul> <li>Key Benefits:</li> <li>Made to order protein - from design to production - by highly experienced protein experts.</li> <li>Protein expressed in mammalian cells and purified in one-step affinity chromatography</li> <li>The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> <li>This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.</li> </ul>
	If you are not interested in a full length protein, please contact us for individual protein fragments.
	The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

## Target Details

Target:	DMPK
Alternative Name:	DMPK (DMPK Products)
Background:	Myotonin-protein kinase (MT-PK) (EC 2.7.11.1) (DM-kinase) (DMK) (DM1 protein kinase)
	(DMPK) (Myotonic dystrophy protein kinase),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

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	myocytes. May also phosphorylate FXYD1/PLM which is able to induce chloride currents. May also play a role in synaptic plasticity. {ECO:0000269 PubMed:10811636, ECO:0000269 PubMed:10913253, ECO:0000269 PubMed:11287000, ECO:0000269 PubMed:15598648, ECO:0000269 PubMed:21457715, ECO:0000269 PubMed:21949239}.
Molecular Weight:	69.4 kDa
UniProt:	Q09013
Pathways:	Regulation of Muscle Cell Differentiation, Synaptic Membrane, Skeletal Muscle Fiber Development
Application Details	
Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months