# Active Recombinant Human DMPK Protein, GST-tagged

**Cat. No.** DMPK-2707H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Human DMPK (AAA75236.1, 1 a.a. - 544 a.a.) partial recombinant protein with GST tag expressed in baculovirus infected Sf21 cells. |
| **Species** | Human |
| **Source** | Insect Cells |
| **ProteinLength** | 1-544 a.a. |
| **Description** | 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] |
| **Form** | Liquid |
| **Bio-activity** | The activity was determined by ELISA. The enzyme was incubated with GST-fused substrate protein, and after stopping kinase reaction by EDTA, the reaction solution |

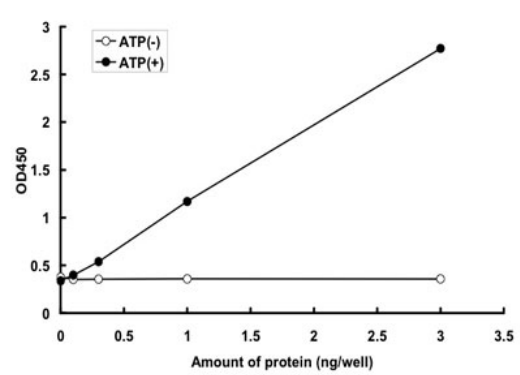
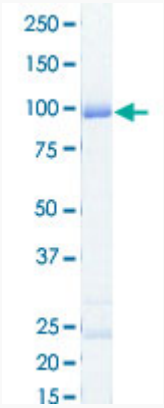
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| | was transferred into glutathione-coated plate. Phosphorylation was detected by anti-phospho antibody and HRP-labeled anti-rabbit IgG.<br>Substrate: MYPT1.<br>ATP: 100 μM. |
| **Molecular Mass** | 88 kDa |
| **Purity** | 82 % by SDS-PAGE/CBB staining |
| **Applications** | Functional Study<br>SDS-PAGE |
| **Storage** | Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing. |
| **Storage Buffer** | In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.1% CHAPS, 1 mM DTT, 10% glycerol) |

## GENE INFORMATION

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| **Gene Name** | DMPK dystrophia myotonica-protein kinase [ Homo sapiens ] |
| **Official Symbol** | DMPK |
| **Synonyms** | DMPK; dystrophia myotonica-protein kinase; myotonin-protein kinase; DM; DM protein kinase; DM1; DM1PK; DMK; dystrophia myotonica 1; MDPK; MT PK; myotonic dystrophy associated protein kinase; myotonin protein kinase A; thymopoietin homolog; DM-kinase; DM1 protein kinase; myotonic dystrophy protein kinase; MT-PK; |
| **Gene ID** | 1760 |
| **mRNA Refseq** | NM_001081563 |

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| **Protein Refseq** | NP_001075032 |
| **MIM** | 605377 |
| **UniProt ID** | Q09013 |
| **Result of activity analysis** |  |
| **Quality Control Testing** | <br>Loading 1 μg protein in SDS-PAGE |

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