

Human DMPK Protein, His Tag (active enzyme, MALS verified)

Catalog # DMK-H5143



BIOSYSTEMS
Acro

Synonym

DM, DM1, DM1PK, DMK, MDPK, MT-PK

Source

Human DMPK Protein, His Tag (DMK-H5143) is expressed from *E. coli* cells. It contains AA Leu 10 - Pro 420 (Accession # [Q09013-9](#)).

Predicted N-terminus: Met

Molecular Characterization

Poly-his	DMPK(Leu 10 - Pro 420) Q09013-9
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This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 48.0 kDa. The protein migrates as 45-50 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

The protein is designed as a dimer.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Supplied as 0.2 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

Storage

Please avoid repeated freeze-thaw cycles.

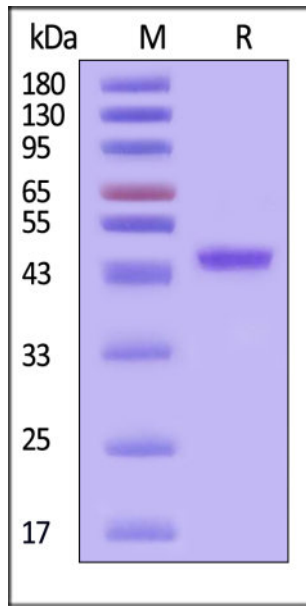
This product is stable after storage at:

- The product **MUST** be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

ACRO Quality Management System

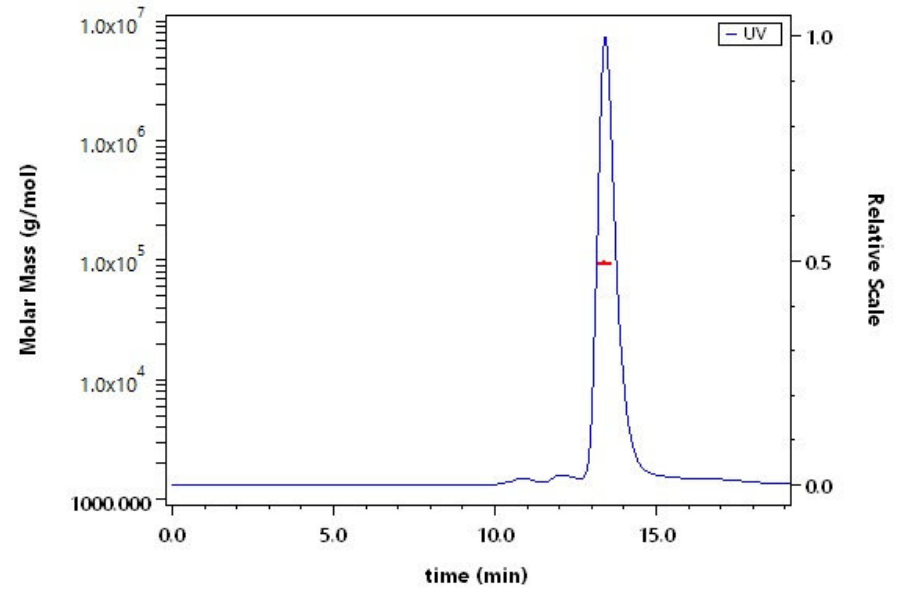
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



Human DMPK Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Human DMPK Protein, His Tag (Cat. No. DMK-H5143) is more than 90% and the molecular weight of this protein is around 86-100 kDa verified by SEC-MALS.

Bioactivity

The DMPK assay is performed using the ADP-Glo™ Kinase Assay kit which quantifies the amount of ADP produced by the DMPK reaction. The ADP-Glo™ Reagent is added to terminate the kinase reaction and to deplete the remaining ATP, and then the Kinase Detection Reagent is added to convert ADP to ATP and to measure the newly synthesized ATP using luciferase/luciferin reaction. The specific activity is >2 pmol/min/ug (QC tested).

Background

DMPK (Dystrophia Myotonia Protein Kinase) is a serine/threonine kinase involved in cytoskeletal organization, calcium homeostasis, and muscle function. Mutations or dysregulation of DMPK are linked to myotonic dystrophy type 1 (DM1). The enzyme is widely studied as a signaling regulator and potential therapeutic target.

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