Human PADI4 Protein, His Tag (active enzyme, MALS verified)

Catalog # PA4-H55H3

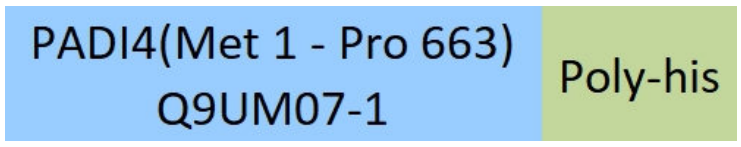
Synonym

Protein-arginine deiminase type-4,HL-60 PAD,Peptidylarginine deiminase IV,Protein-arginine deiminase type IV,PADI4,EC:3.5.3.15

Source

Human PADI4 Protein, His Tag(PA4-H55H3) is expressed from Baculovirus-Insect cells. It contains AA Met 1 - Pro 663 (Accession # Q9UM07-1).
Predicted N-terminus: Met 1

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 76.0 kDa. The protein migrates as 70-85 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Supplied as 0.2 μm filtered solution in 20 mM Tris, 200 mM NaCl, pH8.0 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.

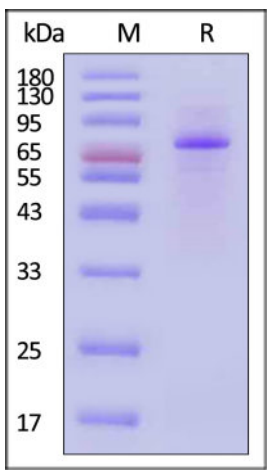
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

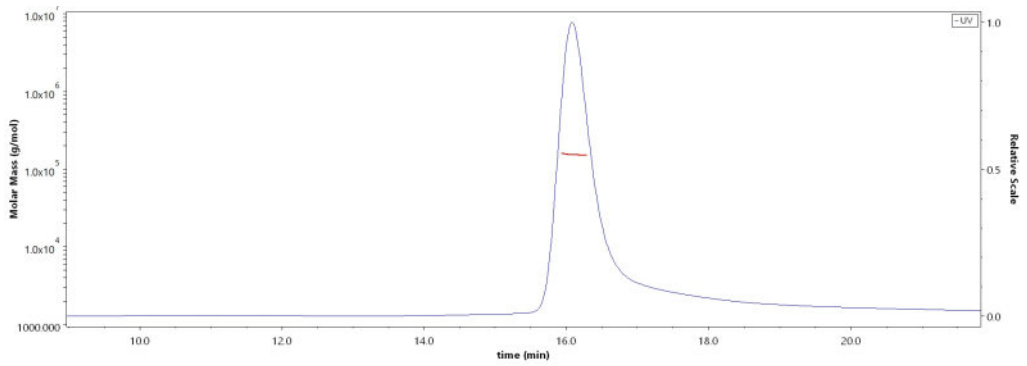
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



Human PADI4 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 PADI4 Protein, His Tag (Cat. No. PA4-H55H3) is more than 90% and the molecular weight of this protein is around 150-180 kDa verified by SEC-MALS.
Report

Bioactivity

Measured by its ability to catalyze the deimination of benzoyl-arginine ethyl ester. The specific activity is >1000 pmol/min/μg (QC tested).

Background

Protein arginine deiminase, type 4 (PADI4) is a calcium dependent enzyme Catalyzes the citrullination/deimination of arginine residues of proteins such as histones, thereby playing a key role in histone code and regulation of stem cell maintenance. PADI4 can interact with tumor suppressor p53 and regulate the transcriptional activity of p53. Dysregulation of PADI4 is implicated in a variety of diseases, including rheumatoid arthritis, tumor development, and multiple sclerosis.

Clinical and Translational Updates