Human N-fatty-acyl-amino acid synthase/ hydrolase PM20D1

Origin:	Recombinant	**Cat. No.:**	41700
Tag:	N-terminal 6xHis	**Size:**	0.1 mg
Source:	*E.coli*	**Purity:**	>95%
Other names:	PM20D1	**Species:**	Human

Description

Expressed in *E.coli* with total 521 AA. Mw: 58.1 KDa (calculated).
N-terminal 6xHis-tag, EK recognition site and TEV cleavage site, 44 extra AA (highlighted).
Recombinant antigen for research use or manufacturing only.

Introduction to the Molecule

PM20D1 is a bidirectional N-fatty-acyl amino acid synthase/hydrolase that regulates the production of N-fatty-acyl amino acids. These metabolites are endogenous chemical uncouplers of mitochondrial respiration. In an UCP1-independent manner, maybe through interaction with mitochondrial transporters, they promote proton leakage into the mitochondrial matrix. PM20D1 may indirectly regulate the bodily dissipation of chemical energy as heat through thermogenic respiration.

Amino Acid Sequence

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSENLY FQGAMGPRSG EHQRASRIPS
QFSKEERVAM KEALKGAIQI PTVTFSSEKS NTTALAEFGK YIHKVFPTVV STSFIQHEVV
EEYSHLFTIQ GSDPSLQPYL LMAHFDVVPA PEEGWEVPPF SGLERDGIIY GRGTLDDKNS
VMALLQALEL LLIRKYIPRR SFFISLGHDE ESSGTGAQRI SALLQSRGVQ LAFIVDEGGF
ILDDFIPNFK KPIALIAVSE KGSMNLMLQV NMTSGHSSAP PKETSIGILA AAVSRLEQTP
MPIIFGSGTV VTVLQQLANE FPFPVNIILS NPWLFEPLIS RFMERNPLTN AIIRTTTALT
IFKAGVKFNV IPPVAQATVN FRIHPGQTVQ EVLELTKNIV ADNRVQFHVL SAFDPLPVSP
SDDKALGYQL LRQTVQSVFP EVNITAPVTS IGNTDSRFFT NLTTGIYRFY PIYIQPEDFK
RIHGVNEKIS VQAYETQVKF IFELIQNADT DQEPVSHLHK L

Endotoxin Level

<0.2 EU per 1 μg of the protein by the LAL method.

Formulation

Lyophilized at 1 mg/mL in NaCl 500mM, KCl 2.7mM, Na_2HPO_4 10mM, KH_2PO_4 1.8mM, pH 8.0.

Reconstitution

Add deionized water to prepare a working stock solution of approximately 1 mg/mL and let the lyophilized pellet dissolve completely.

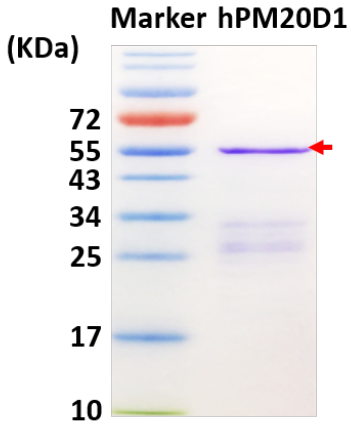
Storage

Store lyophilized protein at −20°C. Aliquot reconstituted protein and store at −80°C. Avoid repeated freezing /thawing cycles.

Quality Control Test

BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.

SDS-PAGE gel



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