

**41700. 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 545 AA. Mw: 60.66 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**

**MRGSHHHHHHGMASMTGGQQMGRDLYDDDDKDRWGSENLYFQGA AQRVCVCLALVAM  
LLLVFPTVSRSMGPRSGEHQRASRIPSQFSKEERVAMKEALKGAIQIPTVTFSSSEKSNTTALAIEFG  
KYIHKVFPTVVSTSTFIQHEVVEEYSHLFTIQGSDPSLQPYPYLLMAHFDVVPAPPEEGWEVPPFSGLER  
DGIYGRGTLDDKNSVMALLQALELLLRKYIPRRSFFISLGHDEESSGTGAQRISALLQSRGVQLA  
FIVDEGGFILDFFIPNFKKPIALIAVSEKGSMLMLQVNMSTSGHSSAPPKETSIGILAAAVSRLEQT  
PMPIIFGSGTVVTVLQQLANEFPPVNIILSNPWLFEPILSRFMERNPLTNAIIRTTTALTIFKAGVKF  
NVIPPVAQATVNFRIHPGQTVQEVLELTKNIVADNRVQFHVLSAFDPLPVPSPSDDKALGYQLLRQ  
TVQSVFPEVNITAPVTSIGNTDSRFFTNLTTGIYRFYPIYIQPEDFKRIHGVNEKISVQAYETQVKFI  
FELIQNADTDQEPVSHLHKL**

**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<sub>2</sub>HPO<sub>4</sub> 10mM, KH<sub>2</sub>PO<sub>4</sub> 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**

