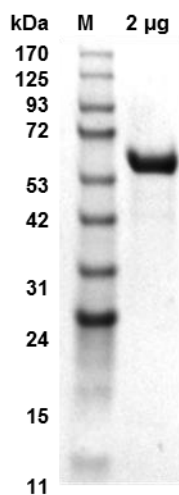


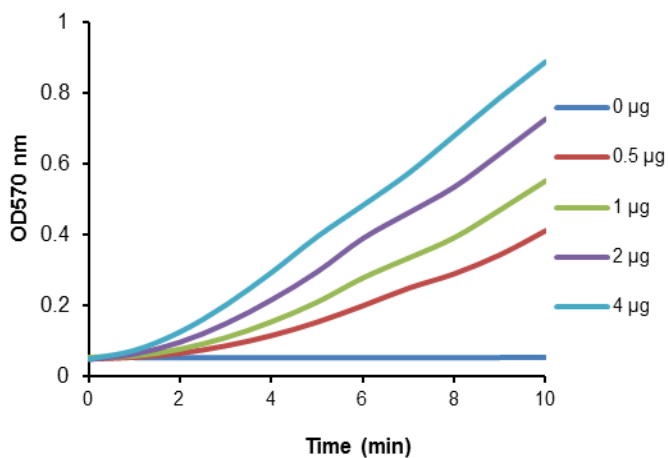
# Human CellExp™ PM20D1, Human Recombinant

07/19

<b>CATALOG NO:</b>	P1430-10 10 µg
<b>ALTERNATE NAMES:</b>	N-fatty-acyl-amino acid synthase, hydrolase PM20D1, Peptidase M20 domain-containing protein 1
<b>MOL. WT.</b>	~60 kDa (with glycosylation and C terminal 8x His tag)
<b>SOURCE:</b>	HEK 293 cells
<b>PURITY:</b>	>95%
<b>FORM:</b>	Lyophilized
<b>FORMULATION:</b>	Lyophilized from 0.22 µm filtered PBS, pH 7.4 with 5% trehalose
<b>RECONSTITUTION:</b>	Centrifuge the vial prior to opening. Reconstitute in sterile water to desired concentration. Do not vortex.
<b>SPECIFIC ACTIVITY:</b>	PM20D1 Specific Activity: Different amount of PM20D1 was assayed in a colorimetric assay, where PM20D1's ability to hydrolyze substrate N-Oleo-Glycine was measured. The specific activity is >200 mU/mg. One unit of PM20D1 is defined as the amount of enzyme that generates 1.0 µmol of glycine per min under the assay condition at 37°C.
<b>UNIT DEFINITION:</b>	One unit of PM20D1 is defined as the amount of enzyme that generates 1.0 µmol of glycine per min under the assay condition at 37°C.
<b>STORAGE CONDITIONS:</b>	Store at -20°C. After reconstitution, aliquot and store at -80°C and use within 3 months. Avoid repeated freezing and thawing cycles. -20°C
<b>DESCRIPTION:</b>	PM20D1 is a recently discovered (2016) enzyme that regulates lipidated amino acid uncouplers of mitochondria. PM20D1 is a secreted and bidirectional enzyme that can generate N-acyl amino acids (NAAs) from amino acids and free fatty acids; it can also hydrolyze NAAs into amino acids and free fatty acids. NAAs can directly bind mitochondria and function as endogenous uncouplers of UCP1-independent respiration. Mouse and human PM20D1 share 71% amino acid identity. Both contain signal peptides and have identical catalytic residues. PM20D1 may be useful in treating obesity and obesity-related disorders. Other studies suggest that PM20D1 is also associated with early childhood wheezing. Ablation of PM20D1 using mouse model reveals physiologic functions of PM20D1 in NAA signaling of metabolism and nociception.
<b>AMINO ACID SEQUENCE:</b>	Met 26 - Leu 502



**SDS-PAGE (4-20%) of human PM20D1 protein:** 2 µg of the human recombinant PM20D1 is loaded under reducing conditions and stained with Coomassie Blue. Lane M: Molecular weight marker



**PM20D1 Specific Activity:** Different amount of PM20D1 was assayed in a colorimetric assay, where PM20D1's ability to hydrolyze substrate N-Oleo-Glycine was measured. The specific activity is >200 mU/mg. One unit of PM20D1 is defined as the amount of enzyme that generates 1.0 µmol of glycine per min under the assay condition at 37°C.

#### RELATED PRODUCTS:

- Free Fatty Acid Quantification Colorimetric/Fluorometric Kit (Cat. No. K612)
- Fatty Acid Uptake Assay Kit (Cell-Based) (Cat. No. K408)
- Soluble Epoxide Hydrolase Inhibitor Screening Kit (Fluorometric) (Cat. No. K480)
- Fatty Acid Amide Hydrolase 1 (FAAH1), Active (Cat. No. P1257)
- EZScreen™ Free Fatty Acid Colorimetric Assay Kit (384-well) (Cat. No. K956)

**FOR RESEARCH USE ONLY! Not to be used on humans.**