Proteins

Product Data Sheet





AGPAT4 Protein, Human (Cell-Free, His)

Cat. No.: HY-P702209

Synonyms: 1-acylglycerol-3-phosphate O-acyltransferase 4; 1-AGP acyltransferase 4; 1-AGPAT 4;

Lysophosphatidic acid acyltransferase delta; LPAAT-delta

Human Species:

E. coli Cell-free Source: Q9NRZ5 (M1-D319) Accession:

56895 Gene ID: Molecular Weight: 45.5 kDa

PROPERTIES

AA Sequ	uence
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MDLAGLLKSQ FLCHLVFCYV FIASGLIINT IQLFTLLLWP INKQLFRKIN CRLSYCISSQ LVMLLEWWSG TECTIFTDPR AYLKYGKENA IVVLNHKFEI DFLCGWSLSE RFGLLGGSKV LAKKELAYVP IIGWMWYFTE MVFCSRKWEQ DRKTVATSLQ HLRDYPEKYF FLIHCEGTRF TEKKHEISMO VARAKGLPRL KHHLLPRTKG FAITVRSLRN VVSAVYDCTL NFRNNENPTL LGVLNGKKYH ADLYVRRIPL EDIPEDDDEC SAWLHKLYQE TGTFPETPMV KDAFQEEYYR PPRRPWTLVN WLFWASLVLY PFFQFLVSMI $\mathsf{R}\;\mathsf{S}\;\mathsf{G}\;\mathsf{S}\;\mathsf{S}\;\mathsf{L}\;\mathsf{T}\;\mathsf{L}\;\mathsf{A}\;\mathsf{S}$ FILVFFVASV GVRWMIGVTE

IDKGSAYGNS DSKQKLND

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The AGPAT4 protein plays a crucial role in lipid metabolism by converting 1-acyl-sn-glycerol-3-phosphate, also known as

lysophosphatidic acid (LPA), into 1,2-diacyl-sn-glycerol-3-phosphate, commonly referred to as phosphatidic acid (PA). This enzymatic activity involves incorporating an acyl moiety at the sn-2 position of the glycerol backbone. Notably, AGPAT4 exhibits a high acyl-CoA specificity, particularly for polyunsaturated fatty acyl-CoA, with a notable preference for docosahexaenoyl-CoA (22:6-CoA, DHA-CoA). This specificity highlights the enzyme's role in the biosynthesis of specific phospholipids and underscores its significance in the regulation of cellular lipid composition, especially with regard to polyunsaturated fatty acids (

Caution: Product has not been fully validated for medical applications. For research use only.

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