Datasheet for ABIN7549119

# LYPLA1 Protein (AA 1-230) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | LYPLA1 |
| Protein Characteristics: | AA 1-230 |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This LYPLA1 protein is labelled with His tag. |

## Product Details

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| Purpose: | Custom-made recombinant LYPLA1 Protein expressed in mammalian cells. |
| Sequence: | MCGNNMSTPL PAIVPAARKA TAAVIFLHGL GDTGHGWAEA FAGIRSSHIK YICPHAPVRP VTLNMNVAMP SWFDIIGLSP DSQEDESGIK QAAENIKALI DQEVKNGIPS NRIILGGFSQ GGALSLYTAL TTQQKLAGVT ALSCWLPLRA SFPQGPIGGA NRDISILQCH GDCDPLVPLM FGSLTVEKLK TLVNPANVTF KTYEGMMHSS CQQEMMDVKQ FIDKLLPPID **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.** |
| Specificity: | If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer. |
| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts. |

## Product Details

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| | • Protein expressed in mammalian cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. |
| Purity: | > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC) |
| Grade: | custom-made |

## Target Details

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| Target: | LYPLA1 |
| Alternative Name: | LYPLA1 (LYPLA1 Products) |
| Background: | Acyl-protein thioesterase 1 (APT-1) (hAPT1) (EC 3.1.2.-) (Lysophospholipase 1) (Lysophospholipase I) (LPL-I) (LysoPLA I) (Palmitoyl-protein hydrolase) (EC 3.1.2.22),FUNCTION: Acts as an acyl-protein thioesterase (PubMed:19439193, PubMed:20418879). Hydrolyzes fatty acids from S-acylated cysteine residues in proteins such as trimeric G alpha proteins or HRAS (PubMed:20418879). Acts as a palmitoyl thioesterase that catalyzes depalmitoylation of proteins, such as ADRB2, KCNMA1 and SQSTM1 (PubMed:22399288, PubMed:27481942, PubMed:37802024). Acts as a negative regulator of autophagy by mediating palmitoylation of SQSTM1, decreasing affinity between SQSTM1 and ATG8 proteins and recruitment of ubiquitinated cargo proteins to autophagosomes (PubMed:37802024). Acts as a lysophospholipase and hydrolyzes lysophosphatidylcholine (lyso-PC) (PubMed:19439193). Also hydrolyzes lysophosphatidylethanolamine (lyso-PE), lysophosphatidylinositol (lyso-PI) and lysophosphatidylserine (lyso-PS) (By similarity). Has much higher thioesterase activity than lysophospholipase activity (PubMed:19439193). Contributes to the production of lysophosphatidic acid (LPA) during blood coagulation by recognizing and cleaving plasma phospholipids to generate lysophospholipids which in turn act |

## Target Details

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| | as substrates for ENPP2 to produce LPA (PubMed:21393252). {ECO:0000250\|UniProtKB:P70470, ECO:0000269\|PubMed:19439193, ECO:0000269\|PubMed:20418879, ECO:0000269\|PubMed:21393252, ECO:0000269\|PubMed:22399288, ECO:0000269\|PubMed:27481942, ECO:0000269\|PubMed:37802024}. |
| Molecular Weight: | 24.7 kDa |
| UniProt: | O75608 |

## Application Details

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| Application Notes: | We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | 12 months |