# SLC27A4/FATP4 Protein, Human (HEK293, His)

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| **Cat. No.:** | HY-P77206 |
| **Synonyms:** | Long-chain fatty acid transport protein 4; Arachidonate--CoA ligase; ACSVL4 |
| **Species:** | Human |
| **Source:** | HEK293 |
| **Accession:** | Q6P1M0-1 (Q483-L643) |
| **Gene ID:** | 10999 |
| **Molecular Weight:** | Approximately 20-25 kDa |

## PROPERTIES

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| **AA Sequence** | Q A Y L T G D V L V M D E L G Y L Y F R D R T G D T F R W K G E N V S T T E V E<br>G T L S R L L D M A D V A V Y G V E V P G T E G R A G M A A V A S P T G N C D L<br>E R F A Q V L E K E L P L Y A R P I F L R L L P E L H K T G T Y K F Q K T E L R<br>K E G F D P A I V K D P L F Y L D A Q K G R Y V P L D Q E A Y S R I Q A G E E K<br>L |
| **Appearance** | Lyophilized powder. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. |
| **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 $ddH_2O$. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose). |
| **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

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| **Background** | SLC27A4/FATP4 Protein assumes a central role in cellular processes by mediating the levels of long-chain fatty acids (LCFA) within the cell, facilitating their transport across cell membranes. Widely implicated in fatty acid regulation, this protein appears to be the principal fatty acid transporter in small intestinal enterocytes, playing a crucial role in fat absorption during early embryogenesis. Additionally, SLC27A4/FATP4 functions as an acyl-CoA ligase, catalyzing the ATP-dependent formation of fatty acyl-CoA from LCFA and very-long-chain fatty acids (VLCFA) substrates. This catalytic activity not only prevents fatty acid efflux from cells but also potentially enhances fatty acid uptake. The protein is further involved in the formation of the epidermal barrier and likely participates in fatty acid transport across the blood barrier. Indirectly |

inhibiting RPE65 via substrate competition and the production of VLCFA derivatives such as lignoceroyl-CoA, SLC27A4/FATP4 contributes to the prevention of light-induced degeneration of rods and cones, highlighting its diverse and vital roles in cellular and physiological processes.



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