Datasheet for ABIN3119063

# ACSL5 Protein (AA 1-683) (Strep Tag)

1 Image

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## Overview

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| Quantity: | 1 mg |
| Target: | ACSL5 |
| Protein Characteristics: | AA 1-683 |
| Origin: | Human |
| Source: | Tobacco (Nicotiana tabacum) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This ACSL5 protein is labelled with Strep Tag. |
| Application: | ELISA, Western Blotting (WB), SDS-PAGE (SDS) |

## Product Details

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| Sequence: | MLFIFNFLFS PLPTPALICI LTFGAAIFLW LITRPQPVLP LLDLNNQSVG IEGGARKGVS QKNNDLTSCC FSDAKTMYEV FQRGLAVSDN GPCLGYRKPN QPYRWLSYKQ VSDRAEYLGS CLLHKGYKSS PDQFVGIFAQ NRPEWIISEL ACYTYSMVAV PLYDTLGPEA IVHIVNKADI AMVICDTPQK ALVLIGNVEK GFTPSLKVII LMDPFDDDLK QRGEKSGIEI LSLYDAENLG KEHFRKPVPP SPEDLSVICF TSGTTGDPKG AMITHQNIVS NAAAFLKCVE HAYEPTPDDV AISYLPLAHM FERIVQAVVY SCGARVGFFQ GDIRLLADDM KTLKPTLFPA VPRLLNRIYD KVQNEAKTPL KKFLLKLAVS SKFKELQKGI IRHDSFWDKL IFAKIQDSLG GRVRVIVTGA APMSTSVMTF FRAAMGCQVY EAYGQTECTG GCTFTLPGDW TSGHVGVPLA CNYVKLEDVA DMNYFTVNNE GEVCIKGTNV FKGYLKDPEK TQEALDSDGW LHTGDIGRWL PNGTLKIIDR KKNIFKLAQG EYIAPEKIEN IYNRSQPVLQ IFVHGESLRS SLVGVVVPDT DVLPSFAAKL GVKGSFEELC QNQVVREAIL EDLQKIGKES GLKTFEQVKA IFLHPEPFSI ENGLLTPTLK AKRGELSKYF RTQIDSLYEH IQD |

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| | **Sequence without tag. The proposed Strep-Tag is based on experience s 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.** |
| Characteristics: | Key Benefits:<br>• Made in Germany - from design to production - by highly experienced protein experts.<br>• Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.<br>• These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).<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 will ensure that you receive a correctly folded protein.<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.<br><br>Expression System:<br>• ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.<br>• During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!<br><br>Concentration:<br>• The concentration of our recombinant proteins is measured using the absorbance at 280nm.<br>• The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.<br>• We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein. |
| Purification: | Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): |

## Product Details

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| | 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.<br>2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot. |
| Purity: | >80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot. |
| Endotoxin Level: | Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg) |
| Grade: | Crystallography grade |

## Target Details

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| Target: | ACSL5 |
| Alternative Name: | ACSL5 (ACSL5 Products) |
| Background: | Long-chain-fatty-acid--CoA ligase 5 (EC 6.2.1.3) (Arachidonate--CoA ligase) (EC 6.2.1.15) (Long-chain acyl-CoA synthetase 5) (LACS 5),FUNCTION: Catalyzes the conversion of long-chain fatty acids to their active form acyl-CoAs for both synthesis of cellular lipids, and degradation via beta-oxidation (PubMed:17681178, PubMed:24269233, PubMed:22633490, PubMed:33191500). ACSL5 may activate fatty acids from exogenous sources for the synthesis of triacylglycerol destined for intracellular storage (By similarity). Utilizes a wide range of saturated fatty acids with a preference for C16-C18 unsaturated fatty acids (By similarity). It was suggested that it may also stimulate fatty acid oxidation (By similarity). At the villus tip of the crypt-villus axis of the small intestine may sensitize epithelial cells to apoptosis specifically triggered by the death ligand TRAIL. May have a role in the survival of glioma cells. {ECO:0000250, ECO:0000269\|PubMed:17681178, ECO:0000269\|PubMed:18806831, ECO:0000269\|PubMed:19459852, ECO:0000269\|PubMed:22633490, ECO:0000269\|PubMed:24269233, ECO:0000269\|PubMed:33191500}. |
| Molecular Weight: | 76.0 kDa |
| UniProt: | Q9ULC5 |

## Application Details

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| Application Notes: | In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |

## Application Details

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| Comment: | ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.<br>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us. |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | Unlimited (if stored properly) |

## Images


**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process