Datasheet for ABIN3137520

# ALOXE3 Protein (AA 1-711) (Strep Tag)

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## Overview

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| Quantity: | 250 µg |
| Target: | ALOXE3 |
| Protein Characteristics: | AA 1-711 |
| Origin: | Mouse |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This ALOXE3 protein is labelled with Strep Tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA |

## Product Details

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| Brand: | AliCE® |
| Sequence: | MAVYRLCVTT GSYLKAGTLD NIYATLVGTC GESPKQKLDR VGRDFASGSV QKYKVRCEAE LGEILLLRLH KERFAFFCKD PWYCSRICVT APDGSAVHFP CYQWIDGYCT VELRPGTART ICQDSLPLLL DHRKRELQAR QECYRWKIFA PGFPRMVDVS SFQEMESDKK FALTKTVPCA EQDDNSGNRY LPGFPMKIDI PSLLHMEPNI RYSATKTASL IFNALPASFG MKIRGLLDRK GSWKRLDDIR NIFWCHKTFT SEYVTEHWCE DSFFGYQYLN GVNPVMLHCL SSLPSKLPVT NDMVAPLLGP GTCLQTELER GHIFLADYWI LAEAPVHCIN GLQQYVTAPL CLLWLNPQGV LLPLAIQLSQ TPGPESPIFL PTDCELDWLL AKTWVRNSEF LVHENNTHFL CTHLLCEAFS MATLRQLPLC HPVYKLLLPH TRYTLQVNTI ARATLLNPDG LVDKVTSIGR QGLIYLMSTG LAHFTYTDFC LPDSIRARGV LTIPNYHYRD DGLKIWAAIE RFVSEIVSYY YPSDASVQQD CELQAWVGEI FAQAFLGRES SGFPSRLCTP GELVKYLTAI IFNCSAQHAA VNSGQHDFGA WMPNAPSSMR QPPPQTKGDT TMKSYLDTLP EVNTTCRNLL LFWLVSQEPK DQRPLGTYPD |

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| | EHFTEEAPRQ SIAAFQNCLA QISKDIRERN QSLALPYAYL DPPLIENSVS I<br>**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 in one-step affinity chromatography<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 try to ensure that you receive soluble 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 against its specific reference buffer.<br>• We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein. |
| Purification: | One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®). |

## Product Details

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| Purity: | > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC). |
| Grade: | custom-made |

## Target Details

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| Target: | ALOXE3 |
| Alternative Name: | Aloxe3 (ALOXE3 Products) |
| Background: | Hydroperoxide isomerase ALOXE3 (Epidermis-type lipoxygenase 3) (Epidermal LOX-3) (e-LOX-3) (eLOX-3) (Hydroperoxy dehydratase ALOXE3) (Hydroperoxy icosatetraenoate dehydratase) (EC 4.2.1.152) (Hydroperoxy icosatetraenoate isomerase) (EC 5.4.4.7),FUNCTION: Non-heme iron-containing lipoxygenase which is atypical in that it displays a prominent hydroperoxide isomerase activity and a reduced lipoxygenases activity (PubMed:17045234). The hydroperoxide isomerase activity catalyzes the isomerization of hydroperoxides, derived from arachidonic and linoleic acid by ALOX12B, into hepoxilin-type epoxyalcohols and ketones (PubMed:17045234). In presence of oxygen, oxygenates polyunsaturated fatty acids, including arachidonic acid, to produce fatty acid hydroperoxides. In the skin, acts downstream of ALOX12B on the linoleate moiety of esterified omega-hydroxyacyl-sphingosine (EOS) ceramides to produce an epoxy-ketone derivative, a crucial step in the conjugation of omega-hydroxyceramide to membrane proteins (By similarity). Therefore plays a crucial role in the synthesis of corneocytes lipid envelope and the establishment of the skin barrier to water loss (PubMed:22832496). In parallel, it may have a signaling function in barrier formation through the production of hepoxilins metabolites (By similarity). Also plays a role in adipocyte differentiation through hepoxilin A3 and hepoxilin B3 production which in turn activate PPARG (PubMed:20530198). Through the production of hepoxilins in the spinal cord, it may regulate inflammatory tactile allodynia (By similarity). {ECO:0000250\|UniProtKB:D3ZKX9, ECO:0000250\|UniProtKB:Q9BYJ1, ECO:0000269\|PubMed:17045234, ECO:0000269\|PubMed:20530198, ECO:0000269\|PubMed:22832496}. |
| Molecular Weight: | 80.5 kDa |
| UniProt: | Q9WV07 |
| Pathways: | Cell-Cell Junction Organization |

## 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 |

## Application Details

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| | guarantee though. |
| 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.<br>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.** |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | 12 months |