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Datasheet for ABIN3137520

ALOXE3 Protein (AA 1-711) (His tag)

1 Image

Overview

Quantity:	1 mg
Target:	ALOXE3
Protein Characteristics:	AA 1-711
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ALOXE3 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence: MAVYRLCVTT GSYLKAGTLD NIYATLVGTC GESPKQKLDLDR VGRDFASGSV QKYKVRCEAE
LGEILLRLH KERFAFFCKD PWYCSRICVT APDGSAVHFP CYQWIDGYCT VELRPGTART
ICQDSLPLLL DHRKRELQAR QECYRWKIFA PGFPRMVDVS SFQEMESDKK FALTKTVPCA
EQDDNSGNRY LPGFPMKIDI PSLHMEPNI RYSATKTASL IFNALPASFG MKIRGLLDRK
GSWKRLDDIR NIFWCHKTFT SEYVTEHWCE DSFFGYQYLN GVPNVMLHCL SSLPSKLPVT
NDMVAPLLGP GTCLQTELER GHIFLADYWI LAEAPVHCIN GLQQYVTAPL CLLWLNPQGV
LLPLAIQLSQ TPGPESPIFL PTDCELDWLL AKTWVRNSEF LVHENNTHFL CTHLLCEAFS
MATLRQLPLC HPVYKLLLP TRYTLQVNTI ARATLLNPDG LVDKVTSIGR QGLIYLMSTG
LAHFTYDFC LPDSIRARGV LTIPTYHYRD DGLKIWAAIE RFVSEIVSYY YPSDASVQQD
CELQAWVGEI FAQAFGLGRES SGFPSRLCTP GELVKYLTAI IFNCSAQHAA VNSGQHDFGA
WMPNAPSSMR QPPPQTKGDT TMKSYLDTLP EVNTTCRNLL LFWLVSQEPK DQRPLGTYPD
EHFTEEAPRQ SIAAFQNCLA QISKDIRERN QSLALPYAYL DPPLIENSVS I

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Aloxe3 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

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.

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
 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.
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Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free.

Grade:

Crystallography grade

Target Details

Target:	ALOXE3
Alternative Name:	Aloxe3 (ALOXE3 Products)
Background:	<p>Non-heme iron-containing lipoxygenase which is atypical in that it displays a prominent hydroperoxide isomerase activity and a reduced dioxygenase activity compared to other lipoxygenases. The hydroperoxide isomerase activity catalyzes the isomerization of hydroperoxides, derived from arachidonic and linoleic acid by ALOX12B, into hepoxilin-type epoxyalcohols. The dioxygenase activity requires a step of activation of the enzyme by molecular oxygen. 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. Therefore plays a crucial role in the synthesis of corneocytes lipid envelope and the establishment of the skin barrier to water loss. In parallel, it may have a signaling function in barrier formation through the production of hepoxilins metabolites. Plays also a role in adipocyte differentiation through hepoxilin A3 and hepoxilin B3 production which in turn activate PPARG. Through the production of hepoxilins in the spinal cord, it may regulate inflammatory tactile allodynia. {ECO:0000269 PubMed:17045234, ECO:0000269 PubMed:20530198, ECO:0000269 PubMed:22832496}.</p>
Molecular Weight:	81.4 kDa Including tag.
UniProt:	Q9WV07
Pathways:	Cell-Cell Junction Organization

Application Details

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.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Images



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