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Datasheet for ABIN3133952
ALOX15 Protein (AA 2-663) (His tag)

Overview

Quantity:	1 mg
Target:	ALOX15
Protein Characteristics:	AA 2-663
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ALOX15 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence: GVYRIRVSTG DSVYAGSNNE VYLWLIGQHG EASLGKLFRLP CRNSEAEFKV DVSEYLGPLL
FVRVQKWHYL KEDAWFCNWI SVKGPQDQGS EYTFPCYRWV QGTSILNLPE GTGCTVVEDS
QGLFRNHREE ELEERRSLYR WGNWKDGTIL NVAATSISDL PVDQRFREDK RLEFEASQVL
GTMDTVINFP KNTVTCWKSL DDFNYVFKSG HTKMAERVRN SWKEDAFFGY QFLNGANPMV
LKRSTCLPAR LVFPPGMEKL QAQLDEELKK GTLFEADFFL LDGIKANVIL CSQQYLAAPL
VMLKLQPDGQ LLPIAIQLEL PKTGSTPPPI FTPLDPPMDW LLAKCWVRSS DLQLHELQAH
LLRGHLVAEV FAVATMRCLP SVHPVFKLLV PHLLYTMEIN VRARSDLISE RGFFDKVMST
GGGGHLDLLK QAGAFITYSS LCPPDDLAER GLLDIDTCFY AKDALQLWQV MNRYVVGMF
L YYKTDQAVQ DDYELQSWCQ EITEIGLQGA QDRGFPTSLQ SRAQACHFIT MCIFTCTAQH
SSIHGQLDW FYWVPNAPCT MRLPPPCTKD ATMEKLMATL PNPNQSTLQI NVVWLLGRRQ
AVMVPLGQHS EEHFPNPEAK AVLKCFREEL AALDKEIEIR NKSLDIPY EY LRPSLVENS V AI

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 Alox15 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.

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: ALOX15

Alternative Name: Alox15 ([ALOX15 Products](#))

Background: Non-heme iron-containing dioxygenase that catalyzes the stereo-specific peroxidation of free and esterified polyunsaturated fatty acids generating a spectrum of bioactive lipid mediators. Converts arachidonic acid into 12-hydroperoxyeicosatetraenoic acid/12-HPETE and 15-hydroperoxyeicosatetraenoic acid/15-HPETE. Also converts linoleic acid to 13-hydroperoxyoctadecadienoic acid. May also act on (12S)-hydroperoxyeicosatetraenoic acid/(12S)-HPETE to produce hepxilin A3. Probably plays an important role in the immune and inflammatory responses. Through the oxygenation of membrane-bound phosphatidylethanolamine in macrophages may favor clearance of apoptotic cells during inflammation by resident macrophages and prevent an autoimmune response associated with the clearance of apoptotic cells by inflammatory monocytes. In parallel, may regulate actin polymerization which is crucial for several biological processes, including macrophage function. May also regulate macrophage function through regulation of the peroxisome proliferator activated receptor signaling pathway. Finally, it is also involved in the cellular response to IL13/interleukin-13. In addition to its role in the immune and inflammatory responses, may play a role in epithelial wound healing in the cornea maybe through production of lipoxin A4. May also play a role in endoplasmic reticulum stress response and the regulation of bone mass. {ECO:0000269|PubMed:10432118, ECO:0000269|PubMed:11278875, ECO:0000269|PubMed:14716014, ECO:0000269|PubMed:15708862, ECO:0000269|PubMed:22215650, ECO:0000269|PubMed:22503541}.

Molecular Weight: 76.3 kDa Including tag.

UniProt: [P39654](#)

Pathways: [Regulation of Actin Filament Polymerization](#)

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 gurantee 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.

Application Details

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)