

Datasheet for ABIN3093703

ALOX15B Protein (AA 1-676) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	ALOX15B
Protein Characteristics:	AA 1-676
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ALOX15B protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MAEFRVRVST GEAFGAGTWD KSVSVIVGTR GESPLPLDN LGKEFTAGAE EDFQVTLPED VGRVLLLRVH KAPPVLPLLG PLAPDAWFCR WFQLTPPRGG HLLFPCYQWL EGAGTLVLQE GTAKVSWADH HPVLQQQRQE ELQARQEMYQ WKAYNPGWPH CLDEKTVEDL ELNIKYSTAK NANFYLQAGS AFAEMKIKGL LDRKGLWRSL NEMKRIFNFR RTPAAEHAFF HWQEDAFFAS QFLNGLNPVL IRRCHYLPKN FPVTDAMVAS VLGPGTSLQA ELEKGSFLV DHGILSGIQT NVINGKPQFS AAPMTLLYQS PGCGPLLPLA IQLSQTGPN SPIFLPTDDK WDWLLAKTWV RNAEFSFHEA LTHLLSHLL PEVFTLATLR QLPCHPLFK LLIPHTRYTL HINTLARELL IVPGQVVD RS TGIGIEGFSE LIQRNMKQLN YSLLCLPEDI RTRGVEDIPG YYYRDDGMQI WGAVERFVSE IIGIYYPSDE SVQDDRELQA WVREIFSKGF LNQESSGIPS SLETREALVQ YVTMVIFTCS AKHAAVSAGQ FDSCAWMPNL PPSMQLPPPT SKGLATCEGF IATLPPV NAT CDVILALWLL SKEPGDQRPL GTYPDEHFTE EAPRRSIATF QSRLAQISRG IQERNQGLVL

PYTYLDPPLI ENSVSI

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:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 try to ensure that you receive soluble 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.

Expression System:

- 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.
- 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!

Concentration:

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

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

Grade: custom-made

Target Details

Target: ALOX15B

Alternative Name: ALOX15B ([ALOX15B Products](#))

Background: Polyunsaturated fatty acid lipoxigenase ALOX15B (15-lipoxygenase 2) (15-LOX-2) (Arachidonate 15-lipoxygenase B) (15-LOX-B) (EC 1.13.11.33) (Arachidonate 15-lipoxygenase type II) (Linoleate 13-lipoxygenase 15-LOb) (EC 1.13.11.-), FUNCTION: [Isoform A]: Non-heme iron-containing dioxygenase that catalyzes the stereo-specific peroxidation of free and esterified polyunsaturated fatty acids (PUFAs) generating a spectrum of bioactive lipid mediators (PubMed:9177185, PubMed:10625675, PubMed:12704195, PubMed:17493578, PubMed:18311922, PubMed:24282679, PubMed:10542053, PubMed:24497644, PubMed:32404334) (Probable). It inserts peroxy groups at C15 of arachidonate ((5Z,8Z,11Z,14Z)-eicosatetraenoate) producing (15S)-hydroperoxyeicosatetraenoate/(15S)-HPETE (PubMed:17493578, PubMed:12704195, PubMed:24282679, PubMed:9177185, PubMed:11956198, PubMed:10625675, PubMed:24497644) (Probable). Also peroxidizes linoleate ((9Z,12Z)-octadecadienoate) to 13-hydroperoxyoctadecadienoate/13-HPODE (Probable) (PubMed:10542053, PubMed:27435673). Oxygenates arachidonyl derivatives such as 2-arachidonoylglycerol (2-AG) leading to the production and extracellular release of 15-hydroxyeicosatetraenoyl glycerol (15-HETE-G) that acts as a peroxisome proliferator-activated receptor alpha agonist (PubMed:18311922, PubMed:17493578, PubMed:11956198). Has the ability to efficiently class-switch ALOX5 pro-inflammatory mediators into anti-inflammatory intermediates (PubMed:27145229). Participates in the sequential oxidations of DHA ((4Z,7Z,10Z,13Z,16Z,19Z)-docosahexaenoate) to generate specialized pro-resolving mediators (SPMs) resolvin D5 ((7S,17S)-diHPDHA), which can actively down-regulate the immune response and have anti-aggregation properties with platelets (PubMed:32404334). In addition to free PUFAs hydrolyzed from phospholipids, it directly oxidizes PUFAs esterified to membrane-bound phospholipids (PubMed:27435673). Has no detectable 8S-lipoxygenase activity on arachidonate but reacts with (8S)-HPETE to produce (8S,15S)-diHPETE (Probable). May regulate progression through the cell cycle and cell proliferation (PubMed:12704195, PubMed:11839751). May also regulate cytokine secretion by macrophages and therefore play a role in the immune response (PubMed:18067895). May also regulate macrophage differentiation into proatherogenic foam cells (PubMed:22912809).

Target Details

{ECO:0000269|PubMed:10542053, ECO:0000269|PubMed:10625675, ECO:0000269|PubMed:11839751, ECO:0000269|PubMed:11956198, ECO:0000269|PubMed:12704195, ECO:0000269|PubMed:17493578, ECO:0000269|PubMed:18067895, ECO:0000269|PubMed:18311922, ECO:0000269|PubMed:22912809, ECO:0000269|PubMed:24282679, ECO:0000269|PubMed:24497644, ECO:0000269|PubMed:27145229, ECO:0000269|PubMed:27435673, ECO:0000269|PubMed:32404334, ECO:0000269|PubMed:9177185, ECO:0000305|PubMed:10542053, ECO:0000305|PubMed:16112079, ECO:0000305|PubMed:27145229, ECO:0000305|PubMed:27435673}., FUNCTION: [Isoform B]: Does not convert arachidonic acid to 15S-hydroperoxyeicosatetraenoic acid/(15S)-HPETE. {ECO:0000269|PubMed:12704195}.

Molecular Weight: 75.9 kDa

UniProt: [O15296](#)

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: 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.

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Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling

	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