

Datasheet for ABIN7562579

## ALOX12B Protein (AA 1-701) (His tag)



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### Overview

Quantity: 1 mg

Target: ALOX12B

Protein Characteristics: AA 1-701

Origin: Mouse

Source: HEK-293 Cells

Protein Type: Recombinant

Purification tag / Conjugate: This ALOX12B protein is labelled with His tag.

Application: Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Purpose: Custom-made recombinat Alox12b Protein expressed in mammalien cells.

Sequence: MATYKVKVAT GTDFFSGTLD SISLTIVGTQ GESHKQRLNH FGRDFATGAV DDYTVQCQQD  
 LGELIIRLH KEPHSFLAKD PWYCNYVQIC APDCRVYHFP AYQWMDGYET LALREATGKI  
 TADDTLPILL EHRQEEIRAK KDFYHWRV FV PGLPNYVDIP SYHPPRRRCR NPNRPEWDGY  
 IPGFPILINI KATRFLNSNL RFSFVKTASF FYRLGPMALA FKLRLGLVDRK RSWKRLKDIK  
 NIFPATKSVV SEYVAEHWTE DSFFGYQYLN GINPGLIRRC TQIPDKFPVT DEMVAPFLGE  
 GTCLQAELER GNIYLADYRI LDGIPTVELN GQQQHHCAPM CLLHFGPDGN MMPIAIQLSQ  
 TPGPDCPIFL PNDSEWDWLL AKTWVRYAEF YSHEAVAHLL ESHLIGEAFC LALLRNLP  
 MC HPLYKLLIPH TRYNVQINSI GRALLLNKGG LSARAMSLGL EGFAQVMVRG LSELYKSLC  
 IPNDFVERGV QDLPGYYFRD DSLAVWYAME RYVTEIITYY YPNDAAVEGD PELQCWWQEI  
 FKECLLGRES SGFPTCLRTI PELIEYVTMV MYTCSARHAA VNSGQLEYTS WMPNFPSSMR  
 NPPMQTKGLT TLQTYMDTLP DVKTTTCIVLL VLWTLCREPD DRRPLGHFPD IHFVEEGPRR

## Product Details

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SIEAFRQNLN QISHNIRQRN KCLTLPYYYL DPVLIENSIS | **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**

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### Characteristics:

#### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

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### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

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### Grade:

custom-made

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## Target Details

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### Target:

ALOX12B

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### Alternative Name:

Alox12b ([ALOX12B Products](#))

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### Background:

Arachidonate 12-lipoxygenase, 12R-type (12R-LOX) (12R-lipoxygenase) (EC 1.13.11.-) (Epidermis-type lipoxygenase 12) (Epidermis-type lipoxygenase 2) (e-LOX 2),FUNCTION: Catalyzes the regio and stereo-specific incorporation of a single molecule of dioxygen into free and esterified polyunsaturated fatty acids generating lipid hydroperoxides that can be further reduced to the corresponding hydroxy species (PubMed:16129665). Does not convert arachidonic acid to (12R)-hydroperoxyeicosatetraenoic acid/(12R)-HPETE (PubMed:10100631, PubMed:11256953). In the skin, acts upstream of ALOXE3 on the lineolate 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

## Target Details

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plays a crucial role in the synthesis of corneocytes lipid envelope and the establishment of the skin barrier to water loss (PubMed:17403930, PubMed:17429434, PubMed:21558561). May also play a role in the regulation of the expression of airway mucins (By similarity).

{ECO:0000250|UniProtKB:O75342, ECO:0000269|PubMed:10100631, ECO:0000269|PubMed:11256953, ECO:0000269|PubMed:16129665, ECO:0000269|PubMed:17403930, ECO:0000269|PubMed:17429434, ECO:0000269|PubMed:21558561}.

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Molecular Weight: 80.6 kDa

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UniProt: [O70582](#)

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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 guarantee though.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months