Datasheet for ABIN3131708

ALOX8/8-LOX Protein (AA 1-677) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ALOX8/8-LOX (ALOX8)
Protein Characteristics:	AA 1-677
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ALOX8/8-LOX protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MAKCRVRVST GEACGAGTWD KVSVSIVGTH GESPLVPLDH LGKEFSAGAE EDFEVTLPQD VGTVLMLRVH KAPPEVSLPL MSFRSDAWFC RWFELEWLPG AALHFPCYQW LEGAGELVLR EGAAKVSWQD HHPTLQDQRQ KELESRQKMY SWKTYIEGWP RCLDHETVKD LDLNIKYSAM KNAKLFFKAH SAYTELKVKG LLDRTGLWRS LREMRRLFNF RKTPAAEYVF AHWQEDAFFA SQFLNGINPV LIRRCHSLPN NFPVTDEMVA PVLGPGTSLQ AELEKGSLFL VDHGILSGVH TNILNGKPQF SAAPMTLLHQ SSGSGPLLPI AIQLKQTPGP DNPIFLPSDD TWDWLLAKTW VRNSEFYIHE AVTHLLHAHL IPEVFALATL RQLPRCHPLF KLLIPHIRYT LHINTLAREL LVAPGKLIDK STGLGTGGFS DLIKRNMEQL NYSVLCLPED IRARGVEDIP GYYYRDDGMQ IWGAIKSFVS EIVSIYYPSD TSVQDDQELQ AWVREIFSEG FLGRESSGMP SLLDTREALV QYITMVIFTC SAKHAAVSSG QFDSCVWMPN LPPTMQLPPP TSKGQARPES FIATLPAVNS SSYHIIALWL LSAEPGDQRP LGHYPDEHFT EDAPRRSVAA FQRKLIQISK GIRERNRGLA

	LPYTYLDPPL IENSVSI **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:	ALOX8/8-LOX (ALOX8)
Alternative Name:	Alox8
Background:	Polyunsaturated fatty acid lipoxygenase ALOX8 (15-lipoxygenase 2) (15-LOX-2) (Arachidonate 15-lipoxygenase B) (15-LOX-B) (Arachidonate 8S-lipoxygenase) (8-LOX) (8S-LOX) (EC 1.13.11.-) (Linoleate 9S-lipoxygenase ALOX8) (EC 1.13.11.58),FUNCTION: 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 (PubMed:9305900, PubMed:10965849, PubMed:10625675, PubMed:16143298, PubMed:16112079, PubMed:15558016, PubMed:27435673). Catalyzes the peroxidation of arachidonate and linoleate into (8S)-HPETE and (9S)-HPODE respectively (PubMed:9305900, PubMed:10965849, PubMed:10625675, PubMed:16143298, PubMed:16112079, PubMed:15558016, PubMed:27435673). In addition to generate (8S)-HPETE from free arachidonic acid (AA), may produce other HETE isomers from phospholipid-esterified polyunsaturated fatty acids and minor products derived from (8S)-HPETE itself that may include leukotriene A4 and 8,15-diHPETE (PubMed:16143298, PubMed:16112079, PubMed:27435673). With free arachidonate as substrate, has no detectable 15S-lipoxygenase activity and only displays a 8S-lipoxygenase activity (PubMed:10625675, PubMed:16112079, PubMed:16143298, PubMed:15558016, PubMed:10965849, PubMed:9305900). However may have a 15S-lipoxygenase activity with (8S)-HPETE to produce (8S,15S)-diHPETE and when oxidizes directly arachidonic acid esterified to membrane-bound phospholipids to produce a phospholipid-esterified 15-HpETE (PubMed:27435673, PubMed:16112079, PubMed:16143298). May also catalyze (15S)-HPETE peroxidation to produce 8,15-diHPETE (PubMed:16112079). May play a role in keratinocyte differentiation through activation of the peroxisome proliferator activated receptor signaling pathway (PubMed:10965849). {ECO:0000269|PubMed:10625675, ECO:0000269|PubMed:10965849, ECO:0000269|PubMed:15558016, ECO:0000269|PubMed:16112079, ECO:0000269|PubMed:16143298, ECO:0000269|PubMed:27435673, ECO:0000269|PubMed:9305900}.
Molecular Weight:	76.2 kDa
UniProt:	O35936

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. 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

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