Datasheet for ABIN3131745

AOX1 Protein (AA 1-1333) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	AOX1
Protein Characteristics:	AA 1-1333
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This AOX1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MDPIQLLFYV NGQKVVEKNV DPEMMLLPYL RKNLRLTGTK YGCGGGGCGA CTVMISRYNP STKAIRHHPV NACLTPICSL HGTAVTTVEG LGNTRTRLHP IQERIAKCHG TQCGFCTPGM VMSMYALLRN HPEPTLDQLT DALGGNLCRC TGYRPIIDAC KTFCKASACC QSKENGVCCL DQEINGLAES QEEDKTSPEL FSEEEFLPLD PTQELIFPPE LMRIAEKQPP KTRVFYGERV TWISPVTLKE LVEAKFKYPQ APIVMGYTSV GPEVKFKGVF HPIIISPDRI EELGVISQAR DGLTLGAGLS LDQVKDILAD IVQKLPEEKT QTYRALLKHL RTLAGSQIRN MASLGGHIVS RHLDSDLNPL LAVGNCTLNL LSKDGERRIP LSEEFLRKCP EADLKPQEVL VSVNIPWSRK WEFVSAFRQA QRQQNALAIV NSGMRVLFRE GGGVIEELSI LYGGVGSTII SAKNSCQRLI GRPWNEGMLD TRCRLVLDEV TLAASAPGGK VEFKRTLIIS FLFKFYLEVS QGLKREDPGH SPSLAGNHES ALDDLHSKHP WRTLTHQNVD PAQLPQDPIG RPIMHLSGIK HATGEAIYCD DMPAVDRELF LTFVTSSRAH AKIVSIDLSE ALSLPGVVDI ITADHLQEAN TFGTETFLAT

DEVHCVGHLV CAVIADSETR AKQAAKQVKV VYQDLAPLIL TIEEAIQHKS FFKSERKLEC GNVDEAFKIV DQILEGEIHI GGQEHFYMET QSMLVVPKGE DGEIDIYVST QFPKYIQDIV AATLKLSANK VMCHVRRVGG AFGGKVGKTS ILAAITAFAA SKHGRAVRCI LERGEDMLIT GGRHPYLGKY KAGFMNEGRI LALDVEHYCN GGCSLDESLW VIEMGLLKLD NAYKFPNLRC RGWACRTNLP SNTALRGFGF PQAGLVTEAC ITEVAIKCGL SPEQVRTINM YKHVDTTHYK QEFSAKALSE CWRECMAKCS YFERKAAIGK FNAENSWKKR GMAVIPLKFP VGIGSVAMGQ AAALVHIYLD GSALVSHGGI EMGQGVHTKM IQVVSRELRM PMSSVHLRGT STETVPNTNA SGGSVVADLN GLAVKDACQT LLKRLEPIIS KNPQGTWKDW AQTAFDQSIS LSAVGYFRGY ESNIDWEKGE GHPFEYFVFG AACSEVEINC LTGDHKNIRT NIVMDVGHSI NPALDIGQVE GAFIQGMGLY TIEELSYSPQ GTLYSRGPNQ YKIPAICDIP TEMHISFLPP SEHSNTLYSS KGLGESGVFL GCSVFFAIHD AVKAARQERG ISGPWKLNSP LTPEKIRMAC EDKFTKMIPR DEPGSYVPCN IPV

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

Product Details

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

Target Details

Target:	AOX1
Alternative Name:	Aox1 (AOX1 Products)
Background:	Aldehyde oxidase 1 (EC 1.2.3.1) (Azaheterocycle hydroxylase 1) (EC 1.17.3.-) (Retinal oxidase),FUNCTION: Oxidase with broad substrate specificity, oxidizing aromatic azaheterocycles, such as N1-methylnicotinamide, N-methylphthalazinium and phthalazine, as well as aldehydes, such as benzaldehyde, retinal, pyridoxal, and vanillin. Plays a role in the metabolism of xenobiotics and drugs containing aromatic azaheterocyclic substituents. Participates in the bioactivation of prodrugs such as famciclovir, catalyzing the oxidation step from 6-deoxypenciclovir to penciclovir, which is a potent antiviral agent. Also plays a role in the reductive metabolism of the xenobiotic imidacloprid (IMI) via its nitroreduction to nitrosoguanidine (IMI-NNO) and aminoguanidine (IMI-NNH(2)). Is probably involved in the regulation of reactive oxygen species homeostasis. May be a prominent source of superoxide generation via the one-electron reduction of molecular oxygen. May also catalyze nitric oxide (NO) production via the reduction of nitrite to NO with NADH or aldehyde as electron donor. May play a role in adipogenesis. Cannot use xanthine and hypoxanthine as substrate. {ECO:0000269|PubMed:10190983, ECO:0000269|PubMed:18671973, ECO:0000269|PubMed:19401776, ECO:0000269|PubMed:23462233}.
Molecular Weight:	146.7 kDa
UniProt:	O54754

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