

Datasheet for ABIN3131745
AOX1 Protein (AA 1-1333) (His tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	AOX1
Protein Characteristics:	AA 1-1333
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This AOX1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys), ELISA

Product Details

Sequence:	MDPIQLLFYV NGQKVVEKNV DPEMMLLPYL RKNLRLTGTK YGCGGGGCGA CTVMISRYNP STKAIRHHPV NACLTPICSL HGTAVTTVEG LGNTRTRLHP IQERIAKCHG TQCGFCTPGM VMSMYALLRN HPEPTLDQLT DALGGNLCRC TGYRPIIDAC KTFCKASACC QSKENGVCCL DQEINGLAES QEEDKTSPPEL FSEEEFLPLD PTQELIFPPE LMRIAQKPP KTRVFYGERV TWISPVTLKE LVEAKFKYPQ APIVMGYTSV GPEVKFKGVF HPIIISPDR EELGVISQAR DGLTLGAGLS LDQVKDILAD IVQKLPEEKT QTYRALLKHL RLAGSQIRN MASLGGHIVS RHLDSDLNPL LAVGNCTLNL LSKDGERRIP LSEEFRLKCP EADLKPQEV L VSVNIPWSRK WEFVSAFRQA QRQQNALAIV NSGMRVLFRE GGGVIEELSI LYGGVGSTII SAKNSCQRLL GRPWNEGMLD TRCRLVLDEV TLAASAPGGK VEFKRTLIS FLKFYLEVS QGLKREDPGH SPSLAGNHES ALDDLHSHKP WRTLTHQNV D PAQLPQDPG R PIMHLSGIK HATGEAIYCD DMPAVDREL F LTFVTSSRAH AKIVSIDLSE ALSLPGVVDI ITADHLQEAN TFGTETFLAT DEVHCVGHLV CAVIADSETR AKQAAKQVKV VYQDLAPLIL TIEEAIQHK S FFKSERKLEC
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GNVDEAFKIV DQILEGEIHI GGQEHFYMET QSMLVVPKGE DGEIDIYVST QFPKYIQDIV
AATLKLSANK VMCHVRRVGG AFGGKVGKTS ILAAITAFAA SKHGRAVRCI LERGEDMLIT
GGRHPYLGKY KAGFMNEGRI LALDVEHYCN GGCSLDESLW VIEMGLLKLD NAYKFPNLRC
RGWACRTNLP SNTALRGFGF PQAGLVTEAC ITEVAIKCGL SPEQVRTINM YKHVDTTTHYK
QEFSAKALSE CWRECMACCS YFERKAAIGK FNAENSWKKR GMAVIPLKFP VGIGSVAMGQ
AAALVHIYLD GSALVSHGGI EMGQGVHTKM IQVVSRELRM PMSSVHLRGT STETVPNTNA
SGGSVVADLN GLAVKDACQT LLKRLEPIIS KNPQGTWKDW AQTAFDQSIG LSAVGYFRGY
ESNIDWEKGE GHPFEYFVFG AACSEVEINC LTGDHKNIRT NIVMDVGHSI NPALDIGQVE
GAFIQMGGLY TIEELSYSPQ GTLYSRGPNQ YKIPAICDIP TEMHISFLPP SEHSNTLYSS
KGLGESGVFL GCSVFFAIHD AVKAARQERG ISGPWKLNSP LTPEKIRMAC EDKFTKMIPR
DEPGSYVPCN IPV

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 Aox1 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:

Product Details

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: AOX1

Alternative Name: Aox1 ([AOX1 Products](#))

Background: Oxidase with broad substrate specificity, oxidizing aromatic azaheterocycles, such as N1-methylnicotinamide and N-methylphthalazinium, 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. Also may 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: 147.6 kDa Including tag.

UniProt: [O54754](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies

Application Details

as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee 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.

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)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process