



[Go to Product page](#)

Datasheet for ABIN3118453
DUOX2 Protein (AA 26-1548) (rho-1D4 tag)

Overview

Quantity:	1 mg
Target:	DUOX2
Protein Characteristics:	AA 26-1548
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DUOX2 protein is labelled with rho-1D4 tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys), ELISA

Product Details

Sequence: QDALSLPWEV QRYDGFNNL RHERGAVGC RLQRRVPANY ADGVYQALEE PQLPNRRLS
NAATRGIAGL PSLHNRTVLG VFFGYHVLSD VSVETPGCP AEFLNIRIPP GDPVFDPDQR
GDVVLFPQRS RWDPETGRSP SNPRDLANQV TGWLDGSAIY GSSHSWSDAL RSFSGGQLAS
GPDPAFPRDS QNPLLMWAAP DPATGQNGPR GLYAFGAERG NREPFLQALG LLWFRYHNLW
AQRLARQHPD WEDEELFQHA RKRVIATYQN IAVYEWLPSF LQKTLPEYTG YRPFLDPSIS
PEFVASEQF FSTMVPPGVY MRNASCHFRK VLNKGFQSSQ ALRVCNNYWI RENPNLNSTQ
EVNELLGMA SQISELEDNI VVEDLRDYWP GPGKFSRTDY VASSIQRGRD MGLPSYSQAL
LAFGLDIPRN WSDLNPNVDP QVLEATAALY NQDLSQLELL LGGLLESHGD PGPLFSAIVL
DQFVRLRDGD RYWFENTRNG LFSKKEIEDI RNTTLRDVLV AVINIDPSAL QPNVFWHKG
APCPQPKQLT TDGLPQCAPL TVLDFFEGSS PGFAITIAL CCLPLVSLLL SGVWAYFRGR
EHKKLQKKLK ESVKKEAAKD GVPAMEWPGP KERSSPIIIQ LLSRCLQVL NRHLTVLRVV
QLQLPQVNL ILSNNRGCRT LLLKIPKEYD LVLLFSSEEE RGAFVQQLWD FCVRWALGLH

VAEMSEKELF RKAIVTKQRE RILEIFFRHL FAQVLDINQA DAGTLPLDSS QKVREALTCE
LSRAEFAESL GLKPQDMFVE SMFSLADKDG NGYLSFREFL DILVVFMKGS PEDKSRLMFT
MYDLDENGFL SKDEFFTMMR SFIEISNNCL SKAQLAEVVE SMFRESGFQD KEELTWEDFH
FMLRDHSEL RFTQLCVKGG GGGGNGIRDI FKQNISCRVS FITRTPGERS HPQGLGPPAP
EAPELGGPGL KKRF GKAAV PTPRLYTEAL QEKMQRGFLA QKLQYKRFV ENYRRHIVCV
AIFSAICGV FADRAYYYGF ASPPSDIAQT TLVGILSRG TAASVSFMFS YILLTMCRNL
ITFLRETFLN RYVPFDDAVD FHRWIAMA AV VLAILHSAGH AVNVYIFS VS PLSLLACIFP
NVFVNDGSKL PQKFYWWFFQ TVPGMTGVLL LLVLAIMYVF ASHHFRRRSF RGFWLTHHLY
ILLYALLIHH GSYALIQ LPT FHIYFLVPAI IYGGDKLVSL SRKKVEISV KAELLPSGVT YLQFQRPQGF
EYKSGQWVRI ACLALGTTEY HPFTLTSAPH EDTLSLHIRA VGPWTTRLRE IYSSPKGNGC
AGYPKLYLDG PFGEGHQEWH KFEVSVLVGG GIGVTPFASI LKDLVFKSSL GSQMLCKKIY
FIWVTRTQRQ FEWLADIIQE VEENDHQDLV SVHIYVTQLA EKFDLRTTML YICERHFQKV
LNRSFLTGLR SITHFGRPPF EPPFNLSQEV HPQVRKIGVF SCGPPGMTKN VEKACQLVNR
QDRAHFMMHY ENF

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.
- Human DUOX2 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.

Product Details

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:	Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. 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:	DUOX2
Alternative Name:	DUOX2 (DUOX2 Products)
Background:	Generates hydrogen peroxide which is required for the activity of thyroid peroxidase/TPO and lactoperoxidase/LPO. Plays a role in thyroid hormones synthesis and lactoperoxidase-mediated antimicrobial defense at the surface of mucosa. May have its own peroxidase activity through its N-terminal peroxidase-like domain. {ECO:0000269 PubMed:12824283}.
Molecular Weight:	174.0 kDa Including tag.
UniProt:	Q9NRD8
Pathways:	Thyroid Hormone Synthesis

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.
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Application Details

Comment: 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)
