

Datasheet for ABIN3088935

AIRE Protein (AA 1-545) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	AIRE
Protein Characteristics:	AA 1-545
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This AIRE protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys), ELISA

Product Details

Sequence:	<p>MATDAALRRL LRLHRTEIAV AVDSAPLLH ALADHDVVPE DKFQETLHLK EKEGCPQAFH ALLSWLLTQD STAILDFWRV LFKDYNLERY GRLQPILDSF PKDVDLSQPR KGRKPPAVPK ALVPPPLRLPT KRKASEEARA AAPAALTPRG TASPGSQLKA KPPKKPESSA EQRRLPLGNG IQTMSASVQR AVAMSSGDVP GARGAVEGIL IQQVFESGGS KKCIQVGGEF YTPSKFEDSG SGKNKARSSS GPKPLVRAKG AQGAAPGGGE ARLGQQGSVP APLALPSDPQ LHQKNEDECA VCRDGGELIC CDGCPRAFHL ACLSPPLREI PSGTWRCSSC LQATVQEVQP RAEERPRQEP PVETPLPPGL RSAGEEVRGP PGEPLAGMDT TLVYKHLPAF PSAAPLPGLD SSALHPLLCV GPEGQQNLAP GARCGVCGDG TDVLRCTHCA AAFHWRCHFP AGTSRPGTGL RCRSCSGDVT PAPVEGV LAP SPARLAPGPA KDDTASHEPA LHRDDLESLL SEHTFDGILQ WAIQSMARPA APFPS</p> <p>Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.</p>
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Product Details

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Human AIRE 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:
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:	AIRE
Alternative Name:	AIRE (AIRE Products)
Background:	Transcriptional regulator that binds to DNA as a dimer or as a tetramer, but not as a monomer. Binds to G-doublets in an A/T-rich environment, the preferred motif is a tandem repeat of 5'-ATTGGTTA-3' combined with a 5'-TTATTA-3' box. Binds to nucleosomes (By similarity). Binds to chromatin and interacts selectively with histone H3 that is not methylated at 'Lys-4', not phosphorylated at 'Thr-3' and not methylated at 'Arg-2'. Functions as a sensor of histone H3 modifications that are important for the epigenetic regulation of gene expression. Functions as a transcriptional activator and promotes the expression of otherwise tissue-specific self-antigens in the thymus, which is important for self tolerance and the avoidance of autoimmune reactions. {ECO:0000250, ECO:0000269 PubMed:11274163, ECO:0000269 PubMed:18292755}.
Molecular Weight:	58.7 kDa Including tag.
UniProt:	O43918
Pathways:	Chromatin Binding

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:	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.

Handling

Expiry Date: Unlimited (if stored properly)

Images



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