

Datasheet for ABIN7565252  
**AIRE Protein (AA 1-552) (His tag)**



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## Overview

Quantity:	1 mg
Target:	AIRE
Protein Characteristics:	AA 1-552
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This AIRE protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant Aire Protein expressed in mammalian cells.
Sequence:	MAGGDGMLRR LLRLHRTEIA VAIDSAFPLL HALADHDVVP EDKFQETLRL KEKEGCPQAF HALLSWLLTR DSGAILDFWR ILFKDYNLER YSRLHSILDG FPKDVDLNQS RKGKPLAGP KAAVLPPRPP TKRKALEEPR ATPPATLASK SVSSPGSHLK TKPPKKPDGN LESQHLPLGN GIQTMAASVQ RAVTVASGDV PGTRGAVEGI LIQQVFESGR SKKCIQVGGE FYTPNKFEDP SGNLKKNKARS GSSLKPVVRA KGAQVTIPGR DEQKVGQQCG VPPLPSLPSE PQVNQKNEDE CAVCHDGGEL ICCDGCPRAF HLAACLSPLQ EIPSGLWRCS CCLQGRVQQN LSQPEVSRPP ELPAETPILV GLRSASEKTR GPSRELKASS DAAVTYVNULL APHPAAPLLE PSALCPLLSA GNEGRPGPAP SARCSVCGDG TEVLRCAHCA AAFHWRCHEP TAAARPGTNL RCKSCSADST PTPGTPGEAV PTSGPRPAPG LAKVGDDAS HDPVLRHDDL ESSLNEHSFD GILQWAIQSM SRPLAETPPF SS <b>Sequence without tag. The proposed Purification-Tag is based on experiences 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.</b>

## Product Details

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**Specificity:** If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

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**Characteristics:** **Key Benefits:**

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

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**Purity:** > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

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**Grade:** custom-made

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## Target Details

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**Target:** AIRE

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**Alternative Name:** Aire ([AIRE Products](#))

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**Background:** Autoimmune regulator (Autoimmune polyendocrinopathy candidiasis ectodermal dystrophy protein homolog) (APECED protein homolog),FUNCTION: Transcription factor playing an essential role to promote self-tolerance in the thymus by regulating the expression of a wide array of self-antigens that have the commonality of being tissue-restricted in their expression pattern in the periphery, called tissue restricted antigens (TRA) (Probable). 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. Mainly expressed by medullary thymic epithelial cells (mTECs), induces the expression of thousands of tissue-restricted

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## Target Details

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proteins, which are presented on major histocompatibility complex class I (MHC-I) and MHC-II molecules to developing T-cells percolating through the thymic medulla (By similarity). Also induces self-tolerance through other mechanisms such as the regulation of the mTEC differentiation program (PubMed:19015306). Controls the medullary accumulation of thymic dendritic cells and the development of regulatory T-cell through the regulation of XCL1 expression (PubMed:21300913). Regulates the production of CCR4 and CCR7 ligands in medullary thymic epithelial cells and alters the coordinated maturation and migration of thymocytes (PubMed:19923453). In thymic B-cells, allows the presentation of licensing-dependent endogenous self-antigen for negative selection (PubMed:26070482). In secondary lymphoid organs, induces functional inactivation of CD4(+) T-cells. Expressed by a distinct bone marrow-derived population, induces self-tolerance through a mechanism that does not require regulatory T-cells and is resistant to innate inflammatory stimuli (PubMed:23993652). {ECO:0000250|UniProtKB:O43918, ECO:0000269|PubMed:19015306, ECO:0000269|PubMed:19923453, ECO:0000269|PubMed:21300913, ECO:0000269|PubMed:23993652, ECO:0000269|PubMed:26070482, ECO:0000305|PubMed:19302042}.

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Molecular Weight: 59.0 kDa

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UniProt: [Q9Z0E3](#)

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Pathways: [Chromatin Binding](#)

## Application Details

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Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months