

## Product datasheet for TP526851

### Aire (NM\_009646) Mouse Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse autoimmune regulator (autoimmune polyendocrinopathy candidiasis ectodermal dystrophy) (Aire), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR226851 representing NM_009646 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)
	<p>MAGGDGMLRRLRLHRTEIAVAIDSAFPLLHALADHDVVPEDKFQETLRLKEKEGCPQAFHALLSWLLTR DSGAILDFWRILFKDYNLERYSLHSILDGFPKDVLDLNSRKGKPLAGPKAAVLP RPPTKRKALEEPR ATPPATLASKSVSSPGSHLKT KPPKPDGNLESQHPLGNGIQTMAASVQRAVTVASGDVPGTRGAVEGI LIQQVFESGRSKKCIQVGGEFYTPNKFEDPSGNLKNKARSGSSLKPVVRAGAQTIPGRDEQKVGQQCG VPPLPSLPSEPQVNQNEDECAVCHDGGELICDGCPRAFHLACLSPPLQEIPSGLWRCSCCLQGRVQQNL SQPEVSRPELPAETPILVGLRSASEKTRGPSRELKASSDAAVTYVNULLAPHPAAPLLEPSALCPLLSAG NEGRPGPAPSARCSVCGDGTVEVLRCAHCAAFFHWRCHFPTAAARPGTNLRCKSCSADSTPTPGTPEAVP TSGPRPAPGLAKVGDSSASHDPVLRDDLESLLNEHSFDGILQWAIQSMSRPLAETPPFSS</p> <p><b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b></p>
Tag:	C-MYC/DDK
Predicted MW:	59.5 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.



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RefSeq: [NP\\_033776](#)

Locus ID: 11634

UniProt ID: [Q9Z0E3](#), [B2MVU6](#)

RefSeq Size: 1993

Cytogenetics: 10 39.72 cM

RefSeq ORF: 1653

Synonyms: MGC123374; MGC123375

**Summary:** 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 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). [UniProtKB/Swiss-Prot Function]

**Product images:**

Purified recombinant protein Aire was analyzed by SDS-PAGE gel and Coomassie Blue Staining.