

Product datasheet for **TA362921**

Aire Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The immunogen is a synthetic peptide directed towards the N terminal region of mouse AIRE
Specificity:	Expected reactivity: Mouse
Formulation:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. <i>Note that this product is shipped as lyophilized powder to China customers.</i>
Concentration:	lot specific
Purification:	Affinity purified
Conjugation:	Unconjugated
Storage:	For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	54 kDa
Gene Name:	autoimmune regulator (autoimmune polyendocrinopathy candidiasis ectodermal dystrophy)
Database Link:	NP_001258478.1 Entrez Gene 11634 Mouse Q9Z0E3-6



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Background:

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. Controls the medullary accumulation of thymic dendritic cells and the development of regulatory T-cell through the regulation of XCL1 expression. Regulates the production of CCR4 and CCR7 ligands in medullary thymic epithelial cells and alters the coordinated maturation and migration of thymocytes. In thymic B-cells, allows the presentation of licensing-dependent endogenous self-antigen for negative selection. 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 .

Synonyms:

AIRE1; APECED; APS1; APSI; OTTHUMP00000109529; PGA1

Product images: