

Rabbit AIRE Polyclonal Antibody | anti-AIRE antibody

Phospho-AIRE (Ser156) Antibody

CATALOG # AAA31324	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, ELISA
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PRODUCT SYNONYMS

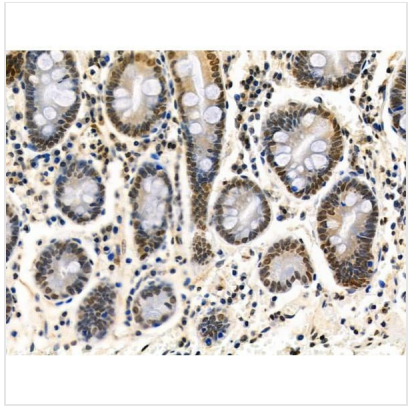
AIRE; Polyclonal Antibody; Phospho-AIRE (Ser156) Antibody; AIRE_HUMAN; AIRE1; APECED; APECED protein; APS1; APSI; Autoimmune polyendocrinopathy candidiasis ectodermal dystrophy protein; Autoimmune regulator; Autoimmune regulator protein; PGA1; anti-AIRE antibody

PRODUCT SPECIFICATIONS

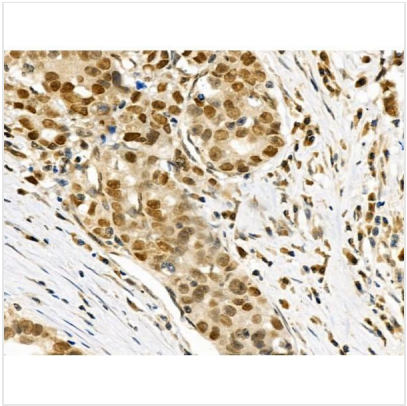
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-AIRE (Ser156) Antibody detects endogenous levels of AIRE only when phosphorylated at Ser156. Tissue Specificity: Widely expressed. Expressed at higher level in thymus (medullary epithelial cells and monocyte-dendritic cells), pancreas, adrenal cortex and testis. Expressed at lower level in the spleen, fetal liver and lymph nodes. In secondary lymphoid organs, expressed in a discrete population of bone marrow-derived tolerogenic antigen presenting cells (APCs) called extrathymic AIRE expressing cells (eTAC) (at protein level). Isoform 2 and isoform 3 seem to be less frequently expressed than isoform 1, if at all.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-AIRE antibody	IHC (Immunohistochemistry), ELISA (Peptide ELISA)
Application Notes	IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human AIRE around the phosphorylation site of Ser156.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated. Phosphorylation could trigger oligomerization.
Subunit Structure	Homodimer and homotetramer. Interacts with CREBBP. Interacts preferentially with histone H3 that is not methylated at 'Lys-4'. Binds with lower affinity to histone H3 that is monomethylated at 'Lys-4'. Trimethylation of histone H3 at 'Lys-4' or phosphorylation at 'Thr-3' abolish the interaction. Binds with lower affinity to histone H3 that is acetylated at 'Lys-4', or that is acetylated at 'Lys-9' or trimethylated at 'Lys-9'. Binds histone H3 that is dimethylated at 'Arg-2' with very low affinity.
Similarity	The L-X-X-L-L repeats may be implicated in binding to nuclear receptors. The HSR domain is required for localization on tubular structures (N-terminal part) and for homodimerization. Interacts via the first PHD domain with the N-terminus of histone H3 that is not methylated at 'Lys-4'. Disruption of the first PHD domain has been shown to lead to reduced transcriptional activity and to localization of the protein mainly in the cytoplasm in small granules. While the PHD zinc fingers are necessary for the transactivation capacity of the protein, other regions also modulate this function.

Subcellular Location	Nucleus. Cytoplasm. Note: Predominantly nuclear but also cytoplasmic (PubMed:11274163, PubMed:14974083). Found in nuclear body-like structures (dots) and in a filamentous vimentin-like pattern (PubMed:11274163, PubMed:14974083, PubMed:26084028). Associated with tubular structures (PubMed:11274163, PubMed:14974083).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



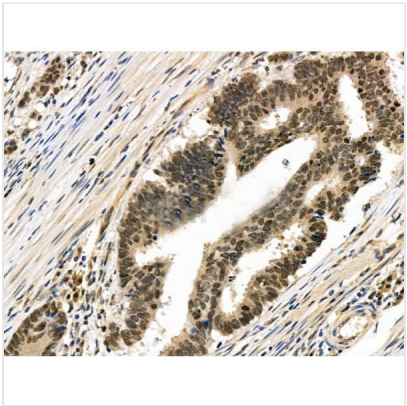
IHC (Immunohistochemistry)
At 1/100 staining Human gastric cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



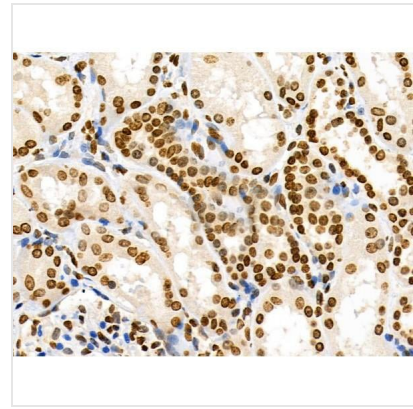
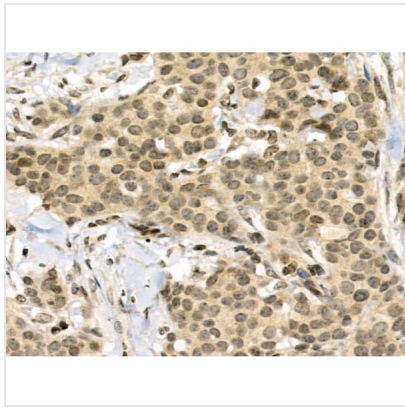
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IHC (Immunohistochemistry)
At 1/100 staining Human esophageal cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human colorectal cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Human mammary cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

IHC (Immunohistochemistry)

At 1/100 staining Human kidney cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-AIRE antibody

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). 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. 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 thimic B-cells, allows the presentation of licensing-dependent endogenous self-anitgen 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 resitant to innate inflammatory stimuli (By similarity).

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557291
NCBI GeneID	326
NCBI Accession #	NP_000374.1
NCBI GenBank Nucleotide #	NM_000383.3
UniProt Accession #	O43918 ; O43922 ; O43932 ; O75745 ; B2RP50
Molecular Weight	57,727 Da
NCBI Official Full Name	autoimmune regulator
NCBI Official Synonym Full Names	autoimmune regulator
NCBI Official Symbol	AIRE
NCBI Official Synonym Symbols	APS1; APSI; PGA1; AIRE1; APECED
NCBI Protein Information	autoimmune regulator; autoimmune polyendocrinopathy candidiasis ectodermal dystrophy protein
UniProt Protein Name	Autoimmune regulator

UniProt Gene Name	AIRE
UniProt Synonym Gene Names	APECED; APECED protein
UniProt Entry Name	AIRE_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/aire-antibody-immunohistochemistry-peptide-elisa-elisa/31324>