# NEUROMICS

Data Sheet

# AIRE (isoform1)

Catalog Number: Product Type:	GT41000 Affinity Purified Antibody	Host: Species Reactivity:	Goat Human
Immunogen Sequence:	Purified, E. coli-derived, recombinant human Mothers Against DPP homolog 1 (rhSmad1; aa 2 - 454).	Format:	Liquid 0.5 mg/ml. Tris saline, 0.02% sodium azide, pH 7.3, 0.5% BSA
Applications:	Immunohistochemistry: 2.5 μg/ml (both frozen and paraffin-embedded tissue) Western Blotting: 0.5-1.0 μg/ml. Peptide ELISA: 1:32,000.		
Storage:	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. Aliquot and store at -20°C. Avoid repeated freeze-thaw cycles.		
References:			
References.	Niki S, Oshikawa K, Mouri Y, Hirota F, Matsushima A, Yano M, Han H, Bando Y, Izumi K, Matsumoto M, Nakayama KI, Kuroda N, Matsumoto M. Alteration of intra-pancreatic target-organ specificity by abrogation of Aire in NOD mice. J Clin Invest. 2006 May 1;116(5):1292-1301. Epub 2006 Apr 20.		

### **Application Notes**

#### Specificity

This antibody is designed to work in the following applications. Please note this antibody recognizes isoform 1 (NP\_000374.1) only

#### Immunohistochemistry:

In paraffin embedded Human Thymus shows nuclear staining in select thymocytes using steamed antigen retrieval with citrate buffer pH 6 and Alkaline Phosphatase (AP) staining. Frozen human tonsil tissue sections is also positive for IHC.

#### Western Blotting:

Primary band is shown at approximately 60 kDa. using transfected HEK293 lysates (calculated MW of 57.7kDa according to NP\_000374.1).

#### Description/Data:

AIRE is a transcriptional regulator that is thought to be important in controlling tissue-specific expression of genes in the thymus. The precise function of the protein is not well defined. It contains zinc finger motifs. The AIRE isoform 1 (AIRE) is a splice variant and is localized to both the nucleus and cytoplasm. Defects in this gene cause the autosomal-recessive systemic autoimmune disease termed autoimmune polyendocrinopathy-candidiasis-ectodermal dystrophy (APECED).

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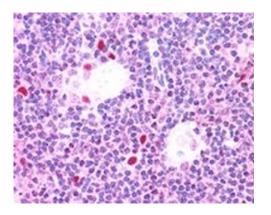


Image: AIRE1 staining (dilution: 2.5µg/ml) of paraffin embedded Human Thymus. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

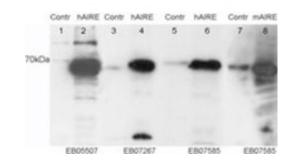


Image: AIRE 1 staining (dilution: 0.05µg/ml) of HEK293 cell lysates. Untransfected (Lane 3) and transfected with Human AIRE1 (lane 4). Data kindly provided by Prof. Pärt Peterson, University of Tartu, Estonia.

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