Mouse Autoimmune Regulator/AIRE Antibody

Monoclonal Rat IgG_{2A} Clone # 609930

Catalog Number: MAB6184

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse AIRE in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human AIRE is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 609930
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse AIRE Ser476-Ser552 (predicted) Accession # Q9Z0E3
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

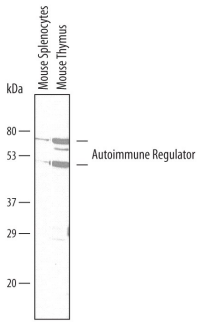
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

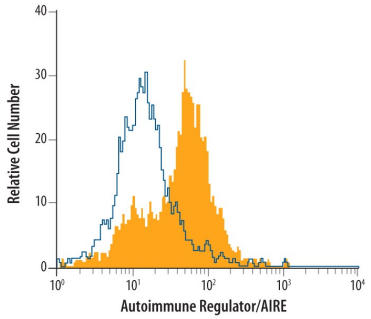
DATA

Western Blot



Detection of Mouse Autoimmune Regulator/AIRE by Western Blot. Western blot shows lysates of mouse splenocytes and mouse thymus tissue. PVDF Membrane was probed with 1 µg/mL of Mouse Autoimmune Regulator/AIRE Monoclonal Antibody (Catalog # MAB6184) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). Specific bands were detected for Autoimmune Regulator/AIRE at approximately 70 and 48 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Intracellular Staining by Flow Cytometry



Detection of Autoimmune Regulator/AIRE in Mouse splenocytes by Flow Cytometry. Mouse splenocytes were stained with Rat Anti-Mouse Autoimmune Regulator/AIRE Monoclonal Antibody (Catalog # MAB6184, filled histogram) or isotype control antibody (Catalog # MAB006, open histogram), followed by Phycoerythrin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0105B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

AutoImmune REgulator (AIRE) is an approximately 60 kDa nuclear and cytosolic protein that is required for the development of T cell tolerance. It regulates the expression of self-antigens by thymic epithelial cells, and mutations in AIRE are causative of the autoimmune disorder, APECED. AIRE regulates gene transcription through interactions with DNA, histone H3, and the nuclear matrix. It contains one HSD domain (aa 1-105), a nuclear localization sequence (aa 113-133), one SAND domain (aa 181-280), and two PHD zinc finger domains (aa 299-340 and aa 434-475). Alternate splicing of human AIRE generates isoforms that lack the HSR and SAND domains and/or the second PHD domain. Within aa 476-552, human AIRE shares 65% and 63% aa sequence identity with mouse and rat AIRE, respectively.

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