

AIRE-1 (N-20): sc-17985

BACKGROUND

The autoimmune regulator gene, which is defective in the hereditary autoimmune disease APECED, encodes the transcriptional activator AIRE. AIRE is expressed in the medullary epithelial cells and monocyte-dendritic cells of the thymus, with lower expression in the spleen, fetal liver and lymph nodes. In adult tissue, AIRE expression in the thymus is confined to the medulla and the cortico-medullary junction, where it is modulated by thymocytes undergoing negative selection. At the cellular level, AIRE is located in microtubular structures of the cytoskeleton and in discrete nuclear dots resembling ND10 nuclear bodies. AIRE is induced by developing early thymocytes and is associated with the correct establishment of a regular thymic environment. AIRE regulates thymic architecture via transcriptional control of downstream target genes. AIRE mutations in APECED patients may affect thymic T cell selection and the formation of self-tolerance.

CHROMOSOMAL LOCATION

Genetic locus: AIRE (human) mapping to 21q22.3; Aire (mouse) mapping to 10 C1.

SOURCE

AIRE-1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of AIRE-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17985 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

AIRE-1 (N-20) is recommended for detection of AIRE-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AIRE-1 (N-20) is also recommended for detection of AIRE-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AIRE-1 siRNA (h): sc-37669, AIRE-1 siRNA (m): sc-37670, AIRE-1 shRNA Plasmid (h): sc-37669-SH, AIRE-1 shRNA Plasmid (m): sc-37670-SH, AIRE-1 shRNA (h) Lentiviral Particles: sc-37669-V and AIRE-1 shRNA (m) Lentiviral Particles: sc-37670-V.

Molecular Weight (predicted) of AIRE-1: 55 kDa.

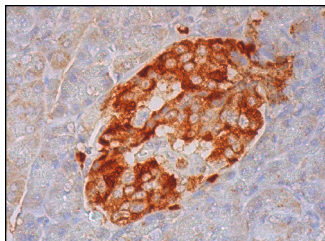
Molecular Weight (observed) of AIRE-1: 55/61 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



AIRE-1 (N-20): sc-17985. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of Islets of Langerhans.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **AIRE-1 (C-2): sc-373703**, our highly recommended monoclonal alternative to AIRE-1 (N-20).