SANTA CRUZ BIOTECHNOLOGY, INC.

HLA-DRα (FL-254): sc-25614

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Major histocompatibility complex (MHC) class II molecules destined for presentation to CD4+ helper T cells is determined by two key events. These events include the dissociation of class II-associated invariant chain peptides (CLIP) from an antigen binding groove in MHC II-α/β dimers through the activity of MHC molecules HLA-DM and -DO, and subsequent peptide antigen binding. Accumulating in endosomal/lysosomal compartments and on the surface of B cells, HLA-DM, -DO molecules regulate the dissociation of CLIP and the subsequent binding of exogenous peptides to HLA class II molecules (HLA-DR, -DQ and -DP) by sustaining a conformation that favors peptide exchange. RFLP analysis of HLA-DM genes from rheumatoid arthritis (RA) patients suggests that certain polymorphisms are genetic factors for RA susceptibility. HLA-B belongs to the HLA class I heavy chain paralogs. Class I molecules play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum lumen. HLA-B and -C can form heterodimers consisting of a membrane-anchored heavy chain and a light chain (β-2-microglobulin). Polymorphisms yield hundreds of HLA-B and -C alleles.

CHROMOSOMAL LOCATION

Genetic locus: HLA-DRA (human) mapping to 6p21.32; H2-Ea-ps (mouse) mapping to 17 B1.

SOURCE

HLA-DR (FL-254) is a rabbit polyclonal antibody raised against amino acids 1-254 representing full length HLA-DR 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.

APPLICATIONS

HLA-DRα (FL-254) is recommended for detection of HLA-DRα of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

HLA-DRα (FL-254) is also recommended for detection of HLA-DRα in additional species, including equine and canine.

Suitable for use as control antibody for HLA-DRα siRNA (h): sc-37113, HLA-DRα siRNA (m): sc-37114, HLA-DRα shRNA Plasmid (h): sc-37113-SH, HLA-DRα shRNA Plasmid (m): sc-37114-SH, HLA-DRα shRNA (h) Lentiviral Particles: sc-37113-V and HLA-DRα shRNA (m) Lentiviral Particles: sc-37114-V.

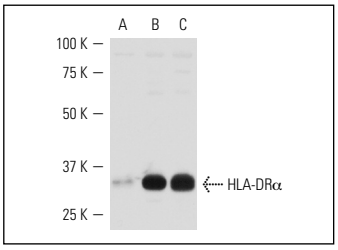
Molecular Weight of HLA-DRα: 34 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, NAMALWA cell lysate: sc-2234 or Ramos cell lysate: sc-2216.

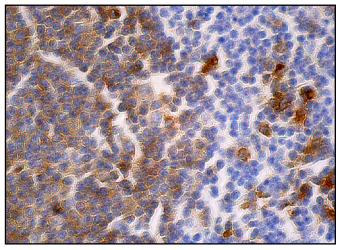
STORAGE

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

DATA



HLA-DRα (FL-254): sc-25614. Western blot analysis of HLA-DRα expression in NAMALWA (**A**), BJAB (**B**) and Ramos (**C**) whole cell lysates.



HLA-DRα (FL-254): sc-25614. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of cells in germinal and non-germinal centers.

SELECT PRODUCT CITATIONS

1. Yu, X., et al. 2006. The regulation of exosome secretion: a novel function of the p53 protein. Cancer Res. 66: 4795-4801.
2. Butticè, G., et al. 2006. Interferon-γ induces major histocompatibility class II transactivator (CIITA), which mediates collagen repression and major histocompatibility class II activation by human aortic smooth muscle cells. Circ. Res. 98: 472-479.
3. Hurgin, V., et al. 2007. Antiviral and immunoregulatory activities of IFN-γ depend on constitutively expressed IL-1α. Proc. Natl. Acad. Sci. USA 104: 5044-5049.
4. McNally, A.K., et al. 2011. Foreign body-type multinucleated giant cells induced by interleukin-4 express select lymphocyte co-stimulatory molecules and are phenotypically distinct from osteoclasts and dendritic cells. Exp. Mol. Pathol. 91: 673-681.
5. Reuss, D.E., et al. 2013. Functional MHC class II Is upregulated in neurofibromin-deficient schwann cells. J. Invest. Dermatol. 133: 1372-1375.

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.