HLA-DR (L243): sc-18875

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). Poly-morphisms yield hundreds of HLA-B and -C alleles.

REFERENCES


SOURCE

HLA-DR (L243) is a mouse monoclonal antibody raised against human B lymphocytes.

PRODUCT

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HLA-DR (L243) is available conjugated to either phycoerythrin (sc-18875 PE) or fluorescein (sc-18875 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

In addition, HLA-DR (L243) is available conjugated to APC (sc-18875 APC), 100 tests in 2 ml, for IF, IHC(P) and FCM.

STORAGE

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

APPLICATIONS

HLA-DR (L243) is recommended for detection of a nonpolymorphic HLA-DR epitope 1-3 of human origin by 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 flow cytometry (1 µg per 1 x 10⁶ cells); not cross-reactive with HLA-DQ or HLA-DP molecules.

Molecular Weight of HLA-DR mature chain: 30 kDa.
Positive Controls: U-698-M whole cell lysate: sc-364799.

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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

See HLA-DR (520B): sc-69673 for HLA-DR antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.