

HLA-DQB1 (IIB3): sc-59247

BACKGROUND

Destination of major histocompatibility complex (MHC) class II molecules for presentation to CD4⁺ helper T cells is determined by two key events: 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, DP and DR) 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. The α 1 chain of HLA-DQ1 class II molecule complex can bind peptides and present them to CD4⁺ T lymphocytes. HLA-DQB1 may be implicated in multiple sclerosis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HLA-DQB1 (human) mapping to 6p21.32.

SOURCE

HLA-DQB1 (IIB3) is a mouse monoclonal antibody raised against HLA-DQB1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HLA-DQB1 (IIB3) is recommended for detection of HLA-DQB1 allele DQw1 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); may cross-react with DR4, DR7, DRw8 and DRw9.

Suitable for use as control antibody for HLA-DQB1 siRNA (h): sc-42918, HLA-DQB1 shRNA Plasmid (h): sc-42918-SH and HLA-DQB1 shRNA (h) Lentiviral Particles: sc-42918-V.

Molecular Weight of HLA-DQB1: 29 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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