**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-αβ 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 α1 chain of HLA-DQ1 class II molecule (Ia antigen) complex can bind peptides and present them to CD4+ T lymphocytes.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: HLA-DQB1 (human) mapping to 6p21.3.

**SOURCE**

HLA-DQ1/3 (HL-37) is a mouse monoclonal antibody raised against Burkitt's lymphoma cell line Raji of human origin.

**RESEARCH USE**

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

**PRODUCT**

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-51615 PE) or fluorescein (sc-51615 FITC) conjugates for flow cytometry, 100 tests.

**APPLICATIONS**

HLA-DQ1/3 (HL-37) is recommended for detection of polymorphic determinant on HLA-DQ1 and HLA-DQ3 of human origin by Western Blotting (non-reducing) (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)) and flow cytometry (1 µg per 1 x 10^6 cells).

Molecular Weight of HLA-DQ1/3: 29 kDa.

Positive Controls: Raji whole cell lysate or human PBL.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

[Graphs and images corresponding to applications and protocols.]

**STORAGE**

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

**PROTOCOLS**

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