



# HLA-DQ1/3 (6D464): sc-71258

## BACKGROUND

Major histocompatibility complex (MHC) class II molecules destined for presentation to CD4<sup>+</sup> 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- $\alpha/\beta$  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  $\alpha$ 1 chain of HLA-DQ1 class II molecule (Ia antigen) complex can bind peptides and present them to CD4<sup>+</sup> T lymphocytes.

## REFERENCES

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3. Momburg, F., et al. B-cell lymphomas of high-grade malignancy frequently lack HLA-DR, -DP and -DQ antigens and associated invariant chain. *Int. J. Cancer*. 40: 598-603.
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## CHROMOSOMAL LOCATION

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

## SOURCE

HLA-DQ1/3 (6D464) 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 200  $\mu$ g IgG<sub>3</sub> in 1.0 mL PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

HLA-DQ1/3 (6D464) 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  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and flow cytometry (1  $\mu$ g per  $1 \times 10^6$  cells).

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

Positive Controls: Raji whole cell lysate: sc-364236.

## 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](http://www.scbt.com) for detailed protocols and support products.