**BACKGROUND**

Peptide (antigen) binding to major histocompatibility complex (MHC) class II molecules destined for presentation to CD4+ helper T cells is determined by two key events. These include the dissociation of class II-associated invariant chain peptides (CLIP) from an antigen binding groove in MHC II-ly dimers and by the activity of MHC molecules HLA-DM and -DO. 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) 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

HLA-DM (MaP.DM1) is a mouse monoclonal antibody raised against MHC class II-enriched compartments of human B cells.

**PRODUCT**

| Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. |
| HLA-DM (MaP.DM1) is available conjugated to agarose (sc-32248 AC), 500 µg/0.25 ml agarose in 1 ml, for IP, to HRP (sc-32248 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32248 PE), fluorescein (sc-32248 FITC), Alexa Fluor® 488 (sc-32248 AF488), Alexa Fluor® 546 (sc-32248 AF546), Alexa Fluor® 594 (sc-32248 AF594) or Alexa Fluor® 647 (sc-32248 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32248 AF680) or Alexa Fluor® 790 (sc-32248 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM. |

**APPLICATIONS**

HLA-DM (MaP.DM1) is recommended for detection of HLA-DM of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Molecular Weight of HLA-DM: 29 kDa.

| To ensure optimal results, the following support reagents are recommended: |
| 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-32248 PE. Intra cellular FCM analysis of fixed and permeabilized human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG1-PE: sc-2866. |

**DATA**

![Intracellular FCM](image)

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

**PRESEARCH USE**

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

**ROTOCOLs**

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

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