HLA-DP (G-9): sc-390694

**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 class IIa 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 and -DO molecules regulate the dissociation of CLIP and the subsequent binding of exogenous peptides to HLA class II molecules (HLA-DR, -DO 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 (B2-Microglobulin). Polymorphisms yield hundreds of HLA-B and C alleles.

**REFERENCES**


**CHROMOSOMAL LOCATION**


**SOURCE**

HLA-DP (G-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 69-102 of HLA-DP of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HLA-DP (G-9) is available conjugated to agarose (sc-390694 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390694 HRP), 200 µg/ml, for WB, IHC) and ELISA; to either phycoerythrin (sc-390694 PE), fluorescein (sc-390694 FITC), Alexa Fluor® 488 (sc-390694 AF488), Alexa Fluor® 546 (sc-390694 AF546), Alexa Fluor® 594 (sc-390694 AF594), or Alexa Fluor® 647 (sc-390694 AF647), 200 µg/ml, for WB (RGB), IF, IHC and FCM; and to either Alexa Fluor® 680 (sc-390694 AF680) or Alexa Fluor® 790 (sc-390694 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

HLA-DP (G-9) is recommended for detection of HLA-DP, HLA-DR, HLA-DRβ3, HLA-DRβ4, and HLA-DRβ5 of mouse origin, HLA-DQB1, H2-Eb1, and H2-Eb2 of mouse origin and the corresponding rat homologs by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein [1 ml of cell lysate]) in immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HLA-DP (G-9) is also recommended for detection of HLA-DP, HLA-DR, HLA-DRβ3, HLA-DRβ4, and HLA-DRβ5 in additional species, including bovine.

**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.

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