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 Ila/b 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, -DQ 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 (β2-Microglobulin). Polymorphisms yield hundreds of HLA-B and C alleles.

**REFERENCES**


**APPLICATIONS**

HLA-DP (G-9) is recommended for detection of HLA-DP, HLA-DR, HLA-DRβ3, HLA-DRβ4, and HLA-DRβ5 of human 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)], 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).

**PRODUCT**

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

**STORAGE**

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

**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.

**DATA**

**CHROMOSOMAL LOCATION**

Genetic locus: HLA-DPB1/HLA-DRB1/HLA-DRB4/HLA-DRB5/HLA-DRB3 (human) mapping to 6p21.32; H2-Ab1/H2-Eb1/H2-Eb2 (mouse) mapping to 17 B1.

**REFERENCES**