



HLA-DP/DR/DQ (BL-IA/6): sc-59239

BACKGROUND

Major histocompatibility complex (MHC) molecules, which include human leukocyte antigens (HLAs), form an integral part of the immune response system. They are cell-surface receptors that bind foreign peptides and present them to cytotoxic T lymphocytes (CTLs). MHC class I molecules consist of two polypeptide chains, an α or heavy chain and a non-covalently associated protein, β 2-microglobulin. MHC class II molecules consist of a non-covalent complex of an α and β chain. The differential structural properties of MHC class I and class II molecules account for their respective roles in activating different populations of T lymphocytes. HLAs are polymorphic proteins that are involved in the presentation of antigens: to the T-cell receptor. There are two classes of HLA antigens, class I (HLA-A, HLA-B and HLA-C) and class II (HLA-DP, -DR and -DQ).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HLA-DQA1 (human) mapping to 6p21.32.

SOURCE

HLA-DP/DR/DQ (BL-IA/6) is a mouse monoclonal antibody raised against of HLA-DP/DR/DQ human origin.

PRODUCT

Each vial contains IgG₁ in 500 μ l of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HLA-DP/DR/DQ (BL-IA/6) is recommended for detection of HLA-DR, HLA-DP and HLA-DQ of human origin by immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200) and flow cytometry (10-20 μ l per 1×10^6 cells); Precipitates both the 32-34 kD and 27 kD glycoproteins specific for the MHC class II. It recognizes a non-polymorphic determinant on the beta-chain (27 kD) of the HLA-D-gene products. The antibody stains the majority of mature peripheral B-lymphocytes and activated T-lymphocytes.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

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.