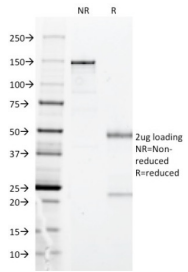
HLA-DP Antibody BraFB6 / MHC Class II DP Antibody [clone BraFB6] (V2578)

Catalog No.	Formulation	Size
V2578-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2578-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2578SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (10)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	BraFB6
Purity	Protein G affinity chromatography
UniProt	P04440
Localization	Cell surface
Applications	ELISA: 2-4ug/ml for coating (order BSA/sodium azide-free format) Flow cytometry: 1-2ug/10^6 cells Immunofluorescence: 1-2ug/ml
Limitations	This HLA-DP Antibody BraFB6 / MHC Class II DP Antibody is available for research use only.



Purified HLA-DP Antibody BraFB6 SDS-PAGE. Electrophoretic analysis of purified, BSA-free HLA-DP Antibody BraFB6 / MHC Class II DP Antibody under non-reducing (NR) and reducing (R) conditions using a 2 ug antibody load. The non-reduced antibody migrates predominantly near ~150 kDa, while reduction produces the expected immunoglobulin heavy and light chain components near ~50 kDa and ~25 kDa, respectively, supporting the integrity and purity of the antibody preparation.

Description

HLA-DP Antibody BraFB6 / MHC Class II DP Antibody recognizes a non-polymorphic determinant of HLA-DP, a member of the major histocompatibility complex class II family. HLA-DP molecules participate in adaptive immunity by presenting peptides derived primarily from extracellular proteins to CD4-positive T lymphocytes. Recognition of peptide-HLA-DP complexes by T cell receptors contributes to antigen-specific T cell activation and the coordination of cellular and humoral immune responses.

HLA-DP is a heterodimeric cell-surface glycoprotein composed of an alpha chain encoded by HLA-DPA1 and a beta chain encoded by HLA-DPB1. The two chains associate non-covalently to form the functional MHC class II molecule. Their extracellular domains create a peptide-binding groove capable of accommodating processed antigenic peptides. Peptide loading occurs within the endosomal pathway before stable peptide-HLA-DP complexes are transported to the cell surface for recognition by CD4-positive T cells.

HLA-DP is one of the three major classical human MHC class II groups, together with HLA-DR and HLA-DQ. Polymorphism within HLA-DP, particularly in the beta chain, contributes to differences in peptide-binding specificity among individuals. HLA-DP variation and expression have been investigated in transplantation, infectious disease, autoimmune and inflammatory disorders, cancer immunology and other areas involving antigen-specific immune recognition.

Expression of MHC class II molecules is closely associated with antigen-presenting cell differentiation and immune activation. HLA-DP is found on populations of B lymphocytes and other antigen-presenting cells, while its expression can change with cellular differentiation and immune signaling. Analysis of HLA-DP can therefore contribute to studies of antigen-presenting cell biology, lymphocyte differentiation and lymphoproliferative disorders.

Clone BraFB6 is a mouse monoclonal antibody generated using the human REH6 acute lymphoblastic leukemia cell line and is characterized as recognizing a non-polymorphic determinant of DP-MHC class II. NSJ Bioreagents provides this HLA-DP Antibody for research into MHC class II expression, antigen presentation and immune-cell biology. An MHC Class II DP Antibody can support investigation of HLA-DP-mediated peptide presentation and its contribution to CD4 T cell immune responses.

For additional information on HLA-DP biology and complementary antibody validation, visit our HLA-DP Antibody HLA-DPB1/2862R / MHC Class II DP Antibody page.

Application Notes

Optimal dilution of the HLA-DP Antibody BraFB6 / MHC Class II DP Antibody should be determined by the researcher.

1. Staining of formalin/paraffin tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min.

Immunogen

Non-T, non-B human acute lymphoblastic leukemia REH6 cell line was used as the immunogen for the HLA-DP Antibody BraFB6.

Storage

Store the HLA-DP Antibody BraFB6 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

HLA-DP antibody, HLA-DPB1 antibody, MHC Class II DP antibody, HLA Class II DP antibody, HLA-DP beta antibody

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