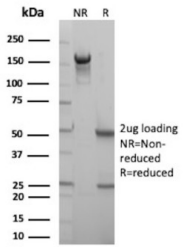
Recombinant HLA-DQ Antibody rSPV-L3 / MHC Class II Antibody [clone rSPV-L3] (V7843)

Catalog No.	Formulation	Size
V7843-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7843-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7843SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rSPV-L3
Purity	Protein G affinity chromatography
UniProt	P01908, P01909, P01920
Localization	Cell surface
Applications	Flow cytometry: 1-2ug/10^6 cells in 0.1ml Immunofluorescence: 1-2ug/ml
Limitations	This Recombinant HLA-DQ Antibody rSPV-L3 / MHC Class II Antibody is available for research use only.



Purified Recombinant HLA-DQ Antibody rSPV-L3 SDS-PAGE. Electrophoretic analysis of purified Recombinant HLA-DQ Antibody rSPV-L3 / MHC Class II 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 prominent immunoglobulin heavy and light chain components near ~50 kDa and ~25 kDa, respectively, supporting the integrity and purity of the recombinant antibody preparation.

Description

Recombinant HLA-DQ Antibody rSPV-L3 / MHC Class II Antibody recognizes human HLA-DQ, a classical major histocompatibility complex (MHC) class II molecule involved in antigen presentation and adaptive immune recognition. HLA-DQ displays processed antigenic peptides at the cell surface for recognition by CD4-positive T lymphocytes. Interaction of peptide-loaded HLA-DQ with an appropriate T cell receptor can promote helper T cell activation and contribute to the coordination of downstream cellular and humoral immune responses.

HLA-DQ is a heterodimer composed of non-covalently associated alpha and beta chains, principally encoded by HLA-DQA1 and HLA-DQB1. Both chains contribute to the extracellular peptide-binding groove and contain polymorphic residues that influence peptide-binding specificity. Extensive genetic variation within the HLA-DQ system produces considerable diversity in antigen presentation among individuals and contributes to associations between particular HLA-DQ alleles and susceptibility to autoimmune and immune-mediated diseases.

HLA-DQ expression is characteristic of professional antigen-presenting cells, including B lymphocytes, dendritic cells and macrophages. Proteins internalized by these cells can be processed within endosomal compartments, where resulting peptides are loaded onto MHC class II molecules. Peptide-HLA-DQ complexes are subsequently transported to the plasma membrane for recognition by CD4-positive T cells. Expression of HLA-DQ can also be influenced by cellular activation and inflammatory signaling.

A Recombinant HLA-DQ Antibody provides a defined monoclonal reagent for investigating HLA-DQ within the broader MHC class II system. HLA-DQ-directed antibodies complement reagents recognizing HLA-DP, HLA-DR or shared pan-HLA class II determinants and can help distinguish DQ-associated expression from broader class II expression. HLA-DQ biology is particularly relevant to studies of antigen presentation, immunogenetics, autoimmunity, transplantation, infectious disease and adaptive immune regulation.

Clone rSPV-L3 is a recombinant mouse monoclonal antibody characterized for recognition of human HLA-DQ. The T4-positive cytotoxic T lymphocyte clone HG-38 was used as the immunogen, and the antibody has been characterized as strongly blocking cytotoxic activity of T4-positive cytotoxic T cell clones. NSJ Bioreagents provides this Recombinant HLA-DQ Antibody for research into MHC class II biology, antigen presentation and immune-cell recognition. An MHC Class II Antibody targeting HLA-DQ can support investigation of HLA-DQ-mediated adaptive immune responses.

For additional information on HLA-DQ biology and complementary antibody validation, visit our HLA-DQ Antibody SPV-L3 / MHC Class II Antibody page.

Application Notes

Optimal dilution of the Recombinant HLA-DQ Antibody rSPV-L3 / MHC Class II Antibody should be determined by the researcher.

Immunogen

The T4-positive CTL clone HG-38 was used as the immunogen for the Recombinant HLA-DQ Antibody rSPV-L3.

Storage

Store the Recombinant HLA-DQ Antibody rSPV-L3 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Recombinant HLA-DQ antibody, HLA-DQ antibody, MHC Class II antibody, HLA Class II DQ antibody, rSPV-L3 antibody

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