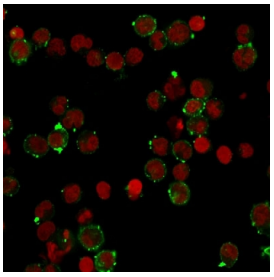
HLA-DQ Antibody HLA-DQA1/2866R / Recombinant MHC Class II Antibody [clone HLA-DQA1/2866R] (V7420)

Catalog No.	Formulation	Size
V7420-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7420-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7420SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

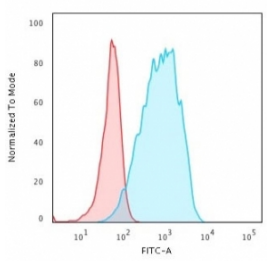
Recombinant RABBIT MONOCLONAL

Bulk quote request

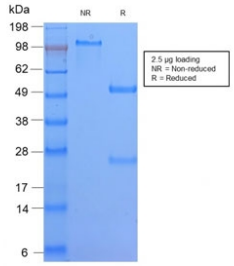
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	HLA-DQA1/2866R
Purity	Protein A affinity chromatography
UniProt	P01908, P01906, P01920
Localization	Cell surface
Applications	Flow cytometry: 1-2ug/10^6 cells Immunofluorescence: 1-2ug/ml
Limitations	This HLA-DQ Antibody HLA-DQA1/2866R / Recombinant MHC Class II Antibody is available for research use only.



HLA-DQ Antibody HLA-DQA1/2866R in Human Raji B Lymphoma Cells IF. Immunofluorescence staining of human Raji B lymphoma cells with HLA-DQ Antibody HLA-DQA1/2866R / Recombinant MHC Class II Antibody (green) and RedDot nuclear stain (red). Strong HLA-DQ immunoreactivity is observed predominantly along the cell periphery, producing distinct membrane-associated staining consistent with the cell-surface localization of MHC class II molecules.



HLA-DQ Antibody HLA-DQA1/2866R in Human Raji B Lymphoma Cells FACS. Flow cytometry testing of human Raji B lymphoma cells with HLA-DQ Antibody HLA-DQA1/2866R / Recombinant MHC Class II Antibody. The antibody-stained population (blue) shows a strong, well-separated fluorescence shift relative to the isotype control (red), demonstrating robust detection of cell-surface HLA-DQ.



Purified HLA-DQ Antibody HLA-DQA1/2866R SDS-PAGE. Electrophoretic analysis of purified, BSA-free HLA-DQ Antibody HLA-DQA1/2866R / Recombinant MHC Class II Antibody under non-reducing (NR) and reducing (R) conditions using a 2.5 ug antibody load. The non-reduced antibody migrates predominantly near ~100 kDa, while reduction produces prominent immunoglobulin heavy and light chain components near ~50 kDa and ~25 kDa, respectively.

Description

HLA-DQ Antibody HLA-DQA1/2866R / Recombinant MHC Class II Antibody recognizes human HLA-DQ, a member of the major histocompatibility complex (MHC) class II family. HLA-DQ participates in adaptive immune recognition by presenting processed antigenic peptides to CD4-positive T lymphocytes. Interaction between peptide-loaded HLA-DQ molecules and T cell receptors can promote helper T cell activation and contribute to the coordination of antigen-specific cellular and humoral immune responses.

HLA-DQ is a heterodimeric transmembrane glycoprotein composed of an alpha chain and a beta chain. The principal genes encoding these components are HLA-DQA1 and HLA-DQB1, respectively, and both chains contribute to formation of the extracellular peptide-binding groove. HLA-DQ genes are highly polymorphic, producing substantial variation in peptide-binding properties among individuals. This diversity influences immune recognition and contributes to well-established associations between particular HLA-DQ variants and susceptibility to autoimmune and immune-mediated diseases.

HLA-DQ is expressed primarily by professional antigen-presenting cells, including B lymphocytes, dendritic cells and macrophages. During antigen processing, internalized proteins are degraded within intracellular compartments and selected peptides are loaded onto MHC class II molecules. Mature peptide-HLA-DQ complexes are subsequently transported to the cell surface, where they can be recognized by CD4-positive T cells. HLA-DQ expression can also be regulated by immune activation and inflammatory signaling.

HLA-DQ Antibody reagents provide a means of investigating this individual branch of the classical MHC class II system, complementing antibodies directed against HLA-DP, HLA-DR or broader pan-HLA class II determinants. HLA-DQ is an important research target in antigen presentation, immunogenetics, transplantation, autoimmune disease, infectious disease and immune regulation. Its extensive polymorphism is particularly relevant to studies examining how inherited HLA variation influences peptide presentation and antigen-specific T cell responses.

Clone HLA-DQA1/2866R is a recombinant rabbit monoclonal antibody characterized for recognition of human HLA-DQ. The antibody was generated using a recombinant human HLA-DQA protein immunogen, providing a distinct recombinant reagent for investigation of HLA-DQ biology. NSJ Bioreagents provides this HLA-DQ Antibody for research into MHC class II expression, antigen presentation and adaptive immunity. A Recombinant MHC Class II Antibody targeting HLA-DQ can support studies of HLA-DQ-mediated immune recognition.

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 HLA-DQ Antibody HLA-DQA1/2866R / Recombinant MHC Class II Antibody should be determined by the researcher.

Immunogen

A recombinant human protein from within amino acids 1-261 was used as the immunogen for the HLA-DQ Antibody HLA-DQA1/2866R.

Storage

Store the HLA-DQ Antibody HLA-DQA1/2866R at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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

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