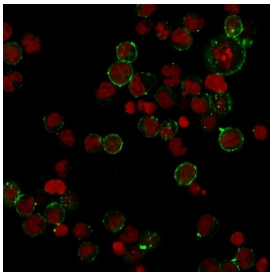
# HLA-DP Antibody HLA-DPB1/2862R / MHC Class II DP Antibody [clone HLA-DPB1/2862R] (V7419)

| Catalog No. | Formulation | Size |
|---|---|---|
| V7419-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V7419-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V7419SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

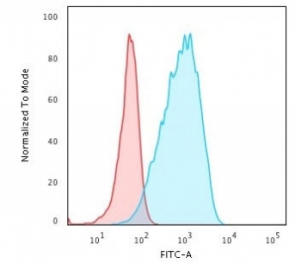
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

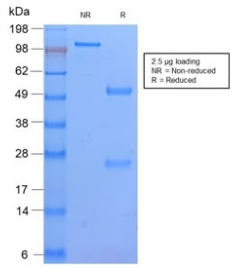
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG, kappa |
| **Clone Name** | HLA-DPB1/2862R |
| **Purity** | Protein A affinity chromatography |
| **UniProt** | P04440 |
| **Localization** | Cell surface |
| **Applications** | ELISA: 2-4ug/ml for coating (order BSA/sodium azide-free format)<br>Flow cytometry: 1-2ug/10^6 cells<br>Immunofluorescence: 1-2ug/ml |
| **Limitations** | This HLA-DP Antibody HLA-DPB1/2862R / MHC Class II DP Antibody is available for research use only. |



HLA-DP Antibody HLA-DPB1/2862R in Human Raji B Lymphoma Cells IF. Immunofluorescence staining of human Raji B lymphoma cells with HLA-DP Antibody HLA-DPB1/2862R / MHC Class II DP Antibody (green) and RedDot nuclear stain (red). Distinct HLA-DP immunoreactivity is observed predominantly along the cell surface, producing peripheral membrane-associated staining around numerous cells.




HLA-DP Antibody HLA-DPB1/2862R in Human Raji B Lymphoma Cells FACS. Flow cytometry testing of human Raji B lymphoma cells with HLA-DP Antibody HLA-DPB1/2862R / MHC Class II DP Antibody. The antibody-stained population (blue) shows a strong fluorescence shift relative to the isotype control (red), demonstrating detection of cell-surface HLA-DP.




Purified HLA-DP Antibody HLA-DPB1/2862R SDS-PAGE. Electrophoretic analysis of purified, BSA-free HLA-DP Antibody HLA-DPB1/2862R / MHC Class II DP Antibody under non-reducing (NR) and reducing (R) conditions using a 2.5 ug antibody load. The non-reduced antibody migrates predominantly near ~98 kDa, while reduction produces prominent immunoglobulin heavy and light chain components near ~50 and ~25 kDa, respectively, supporting the integrity and purity of the recombinant antibody preparation.

## Description

HLA-DP Antibody HLA-DPB1/2862R / 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 are expressed primarily by professional antigen-presenting cells and participate in adaptive immunity by displaying peptides derived from extracellular proteins to CD4-positive T lymphocytes. Recognition of peptide-HLA-DP complexes by T cell receptors contributes to activation and regulation of antigen-specific immune responses.

HLA-DP is a heterodimer composed of an alpha chain encoded by HLA-DPA1 and a beta chain encoded by HLA-DPB1. Both chains are type I transmembrane glycoproteins, and their extracellular domains associate to form the peptide-binding groove characteristic of MHC class II molecules. Peptides generated within the endosomal and lysosomal system are loaded into this groove before peptide-HLA-DP complexes are transported to the cell surface for recognition by CD4-positive T cells.

Like other classical MHC class II molecules, HLA-DP exhibits substantial genetic polymorphism, particularly within regions contributing to peptide binding. Different combinations of HLA-DPA1 and HLA-DPB1 alleles can influence peptide-binding preferences and the resulting T cell repertoire. HLA-DP variation has consequently been investigated in transplantation, infectious disease, autoimmunity, allergy and cancer immunology. HLA-DP can also serve as an alloantigen in transplantation, where differences between donor and recipient HLA-DP molecules may contribute to immune recognition and graft responses.

HLA-DP expression is constitutive on many antigen-presenting cell populations and can be regulated in response to immune signaling. Together with HLA-DR and HLA-DQ, HLA-DP contributes to the diversity of peptides presented through the MHC class II pathway. Studying HLA-DP expression and distribution can therefore provide insight into antigen presentation, immune-cell activation and mechanisms governing CD4 T cell-mediated immunity.

Clone HLA-DPB1/2862R is a recombinant rabbit monoclonal antibody characterized as recognizing a non-polymorphic determinant of DP-MHC class II. NSJ Bioreagents provides this HLA-DP Antibody for research into HLA-DP expression, MHC class II antigen presentation and adaptive immune recognition. An MHC Class II DP Antibody can support investigation of HLA-DP biology and its contribution to peptide presentation and CD4 T cell responses.

Explore our Immunology Antibodies page for additional reagents targeting MHC molecules, antigen presentation and adaptive immune responses.

## Application Notes

Optimal dilution of the HLA-DP Antibody HLA-DPB1/2862R / MHC Class II DP Antibody should be determined by the researcher.

## Immunogen

Non-T, non-B human acute lymphoblastic leukemia REH6 cell line was used as the immunogen for the HLA-DP Antibody HLA-DPB1/2862R.

## Storage

Store the HLA-DP Antibody HLA-DPB1/2862R at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

## Alternate Names

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


Copyright © NSJ Bioreagents. All rights reserved.