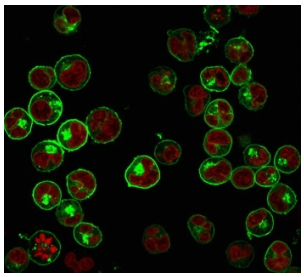
Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody [clone HLA-Pan/2967R] (V7585)

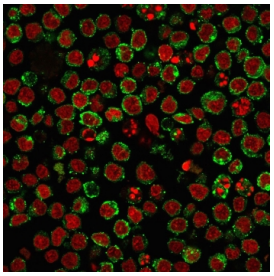
Catalog No.	Formulation	Size
V7585-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7585-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7585SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7585IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

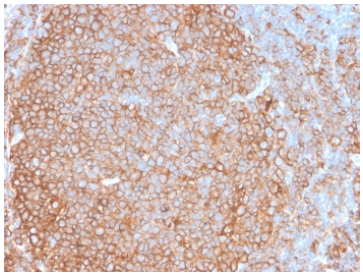
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Monoclonal (mouse origin)
Isotype	Rabbit IgG
Clone Name	HLA-Pan/2967R
Purity	Protein A affinity chromatography
UniProt	P04440; P01908; P01909; P01920; P01903
Localization	Cell surface
Applications	ELISA: 2-5ug/ml (order BSA/sodium azide-free format) Flow cytometry: 1-2ug/10^6 cells Immunofluorescence: 1-2ug/ml Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody is available for research use only.



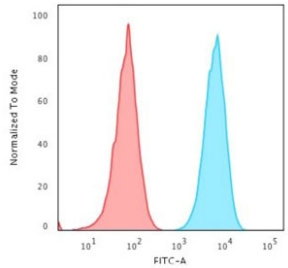
Pan-HLA Class II Antibody HLA-Pan/2967R in Human Raji B Lymphoma Cells IF. Immunofluorescence staining of human Raji B lymphoma cells with Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody (green) and RedDot nuclear stain (red). Strong HLA class II immunoreactivity is observed predominantly along the cell periphery, producing distinct membrane-associated staining consistent with cell-surface localization.



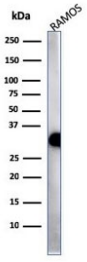
Pan-HLA Class II Antibody HLA-Pan/2967R in Human Ramos B Lymphoma Cells IF. Immunofluorescence staining of human Ramos B lymphoma cells with Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody (green) and RedDot nuclear stain (red). Prominent HLA class II staining outlines numerous cells, demonstrating widespread membrane-associated expression in the Ramos population.



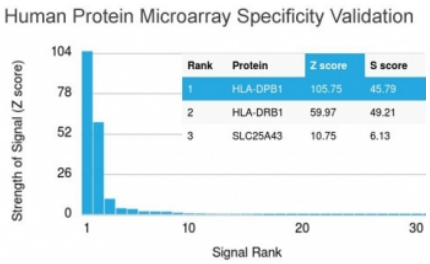
Pan-HLA Class II Antibody HLA-Pan/2967R in Human Tonsil IHC. Immunohistochemistry testing of Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody in FFPE human tonsil tissue. HIER was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling prior to testing. Strong HLA class II immunoreactivity is observed in a prominent lymphoid region, with extensive membrane-associated staining outlining numerous cells.



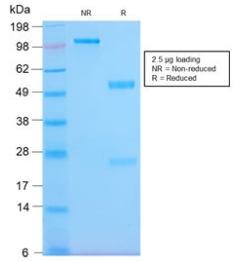
Pan-HLA Class II Antibody HLA-Pan/2967R in Human Ramos B Lymphoma Cells FACS. Flow cytometry testing of human Ramos B lymphoma cells with Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody. The antibody-stained population (blue) shows a strong, well-separated fluorescence shift relative to the isotype control (red), demonstrating robust detection of cell-surface HLA class II molecules.



Pan-HLA Class II Antibody HLA-Pan/2967R in Human Ramos B Lymphoma Cells WB. Western blot testing of Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody with human Ramos B lymphoma cell lysate. A prominent band is observed at approximately 33-35 kDa, consistent with the expected molecular weight of the HLA class II target.



Pan-HLA Class II Antibody HLA-Pan/2967R HuProt Protein Microarray Validation. Protein microarray analysis of Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody using a HuProt array containing more than 19,000 full-length human proteins. HLA-DRB1 produced the highest signal, with an S-score of approximately 45.79, demonstrating strong separation of the intended HLA class II target from other proteins on the array. The Z-score represents signal strength in standard deviations above the array mean, while the S-score measures separation between ranked protein signals.



Purified Pan-HLA Class II Antibody HLA-Pan/2967R SDS-PAGE. Electrophoretic analysis of purified, BSA-free Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody under non-reducing (NR) and reducing (R) conditions using a 2.5 ug antibody load. The non-reduced antibody migrates predominantly near ~150 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

Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody recognizes a common epitope of the human MHC class II antigens HLA-DP, HLA-DQ and HLA-DR. These cell-surface glycoproteins are central to adaptive immunity, where they present processed antigenic peptides to CD4-positive T lymphocytes. Recognition of peptide-MHC class II complexes by T cell receptors contributes to helper T cell activation and coordinates downstream cellular and humoral immune responses.

HLA-DP, HLA-DQ and HLA-DR are heterodimeric molecules composed of non-covalently associated alpha and beta chains. Portions of both chains form the peptide-binding groove characteristic of MHC class II proteins. Peptides generated primarily through endosomal processing are loaded into this groove before stable peptide-HLA complexes are transported to the plasma membrane. At the cell surface, these complexes enable CD4-positive T cells to survey antigens presented by immune cells.

MHC class II molecules are constitutively expressed by professional antigen-presenting cells such as B lymphocytes, dendritic cells and macrophages. Their expression can also be induced or increased in other cell types by inflammatory signaling. Regulation of HLA class II expression therefore plays an important role in antigen presentation and communication between antigen-presenting cells and helper T lymphocytes. Altered HLA class II expression has been investigated in infectious disease, autoimmunity, transplantation, inflammatory disorders and cancer immunology.

A Pan-HLA Class II Antibody provides broad detection of HLA-DP, HLA-DQ and HLA-DR rather than focusing on a single HLA class II locus. This broad reactivity can be useful for investigating overall MHC class II expression and identifying HLA class II-positive cell populations. In contrast, locus-specific antibodies can complement pan-HLA class II detection when discrimination among HLA-DP, HLA-DQ and HLA-DR is required.

Clone HLA-Pan/2967R is a recombinant rabbit monoclonal antibody of mouse origin generated from an antibody raised against the human REH6 acute lymphoblastic leukemia cell line. The clone is characterized as recognizing a common epitope of human HLA-DP, HLA-DQ and HLA-DR and has also been evaluated on a HuProt protein microarray containing more than 19,000 full-length human proteins. NSJ Bioreagents provides this Pan-HLA Class II Antibody for research into MHC class II expression, antigen presentation and adaptive immune recognition. An HLA-DP/DQ/DR Antibody can support studies examining broad HLA class II expression and CD4 T cell-mediated immune responses.

For additional information on HLA class II biology and complementary antibody validation, visit our HLA-DP/DQ/DR Antibody CR3/43 / MHC Class II Antibody page.

Application Notes

Optimal dilution of the Pan-HLA Class II Antibody HLA-Pan/2967R / HLA-DP/DQ/DR Antibody should be determined by the researcher.
1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

The non-T, non-B human acute lymphoblastic leukemia REH6 cell line was used as the immunogen for the Pan-HLA

Class II Antibody.

Storage

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

Alternate Names

Pan-HLA Class II antibody, HLA-DP/DQ/DR antibody, Pan-MHC Class II antibody, HLA Class II antibody, MHC Class II antibody

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