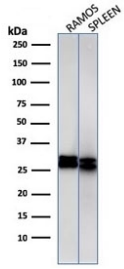
HLA-DRB1 Antibody HLA-DRB/1067 / HLA-DR Beta Chain Antibody [clone HLA-DRB/1067] (V2590)

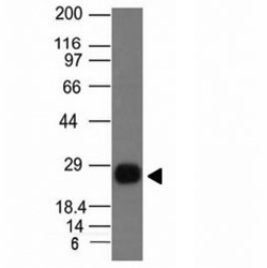
Catalog No.	Formulation	Size
V2590-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2590-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2590SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2590IHC-7ML	Prediluted 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

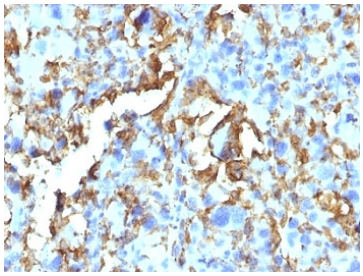
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	HLA-DRB/1067
Purity	Protein G affinity chromatography
UniProt	P01911
Localization	Cell surface
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 2-4ug/ml Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 0.25-0.5ug/ml for 30 min at RT
Limitations	This HLA-DRB1 Antibody HLA-DRB/1067 / HLA-DR Beta Chain Antibody is available for research use only.



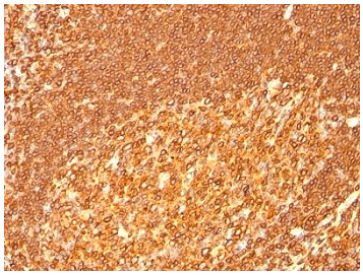
HLA-DRB1 Antibody HLA-DRB/1067 in Human Ramos B Lymphoma Cells and Spleen WB. Western blot testing of human 1) Ramos B lymphoma cell and 2) spleen tissue lysates with HLA-DRB1 Antibody clone HLA-DRB/1067. Prominent bands are detected at approximately 28-32 kDa in both samples, consistent with the expected molecular weight of the HLA-DR beta-chain component. The closely migrating bands are consistent with heterogeneous glycosylation of HLA-DRB1.



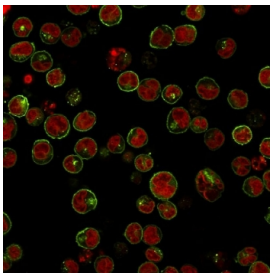
HLA-DRB1 Antibody HLA-DRB/1067 in Human Ramos B Lymphoma Cells WB. Western blot testing of human Ramos B lymphoma cell lysate with HLA-DRB1 Antibody clone HLA-DRB/1067. A strong, discrete band is detected at approximately 28 kDa, consistent with the expected molecular weight of the HLA-DR beta 1 chain.



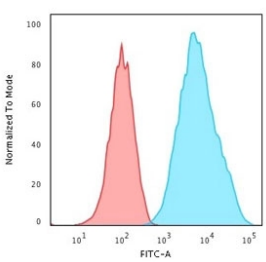
HLA-DRB1 Antibody HLA-DRB/1067 in Human Histiocytoma IHC. Immunohistochemistry staining of FFPE human histiocytoma tissue with HLA-DRB1 Antibody clone HLA-DRB/1067. HLA-DRB1 immunoreactivity is observed in numerous cells, with prominent membrane-associated and cytoplasmic staining.



HLA-DRB1 Antibody HLA-DRB/1067 in Human Tonsil IHC. Immunohistochemistry staining of FFPE human tonsil tissue with HLA-DRB1 Antibody clone HLA-DRB/1067. Strong, widespread HLA-DRB1 immunoreactivity is observed throughout the lymphoid tissue, with particularly prominent staining in numerous immune cells.



HLA-DRB1 Antibody HLA-DRB/1067 in Human Raji B Lymphoma Cells IF. Immunofluorescence staining of human Raji B lymphoma cells with HLA-DRB1 Antibody clone HLA-DRB/1067. HLA-DRB1 immunoreactivity is shown in green and nuclei are counterstained in red. Strong staining is concentrated along the cell periphery, consistent with the membrane localization of the HLA-DR complex.



HLA-DRB1 Antibody HLA-DRB/1067 in Human Raji B Lymphoma Cells FACS. Flow cytometry analysis of human Raji B lymphoma cells with HLA-DRB1 Antibody clone HLA-DRB/1067. The antibody-stained population (blue) shows a strong, well-separated rightward fluorescence shift compared with the isotype control (red), demonstrating robust detection of HLA-DRB1.

Description

HLA-DRB1 Antibody HLA-DRB/1067 / HLA-DR Beta Chain Antibody recognizes HLA-DRB1, the principal beta-chain component of the HLA-DR major histocompatibility complex (MHC) class II molecule. HLA-DR consists of an alpha chain encoded by HLA-DRA associated with a beta chain encoded by an HLA-DRB gene. Together, these transmembrane glycoproteins form a peptide-binding heterodimer that presents antigen-derived peptides to CD4-positive T cells, providing a critical molecular interface between antigen-presenting cells and adaptive immunity.

HLA-DRB1 is highly polymorphic, with extensive allelic variation concentrated within regions contributing to the peptide-binding groove. This diversity influences the repertoire of peptides that individual HLA-DR molecules can present and contributes to variation in immune recognition among individuals. HLA-DRB1 alleles have consequently been extensively investigated in immunogenetics, autoimmune disease, infectious disease and transplantation. The HLA-DR beta chain associates with the comparatively conserved HLA-DRA alpha chain to generate functional HLA-DR complexes at the cell surface.

HLA-DR complexes are prominently expressed by professional antigen-presenting cells, including B lymphocytes, dendritic cells, monocytes and macrophages, and expression can be induced on additional cell populations during immune activation. Peptide-loaded HLA-DR complexes interact with CD4-positive T cells and help regulate antigen-specific immune responses. HLA-DRB1 is therefore central to research investigating antigen presentation, immune-cell communication and mechanisms linking MHC class II diversity with adaptive immunity.

NSJ Bioreagents provides clone HLA-DRB/1067 as an HLA-DRB1 Antibody for research into HLA-DR beta-chain expression and MHC class II biology. The antibody was generated using activated human peripheral blood mononuclear cells as immunogen. Its targeting of the HLA-DR beta-chain component distinguishes it from antibodies directed against HLA-DRA or conformational determinants of the assembled HLA-DR heterodimer. An HLA-DR Beta Chain Antibody can support research into antigen presentation, HLA-DR expression and mechanisms regulating CD4 T cell-mediated adaptive immune responses.

Explore our Immunology Antibodies page for additional antibodies targeting MHC molecules, antigen-presenting cell markers and regulators of adaptive and innate immune responses.

Application Notes

Optimal dilution of the HLA-DRB1 Antibody HLA-DRB/1067 / HLA-DR Beta Chain Antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues is enhanced by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min
2. 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

Activated human peripheral blood mononuclear cells were used as the immunogen for the HLA-DRB1 antibody.

Storage

Store the HLA-DRB1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

HLA-DRB1 antibody, HLA-DR Beta Chain antibody, MHC Class II DR Beta antibody, HLA Class II DRB1 antibody, HLA-DR Beta 1 Chain antibody

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