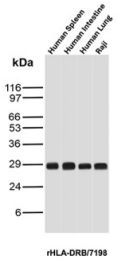
HLA-DRB Antibody rHLA-DRB/7198 / HLA-DR Beta Chain Antibody [clone rHLA-DRB/7198] (V5124)

Catalog No.	Formulation	Size
V5124-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5124-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5124SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

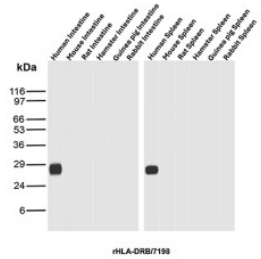
Recombinant | MOUSE MONOCLONAL

Bulk quote request

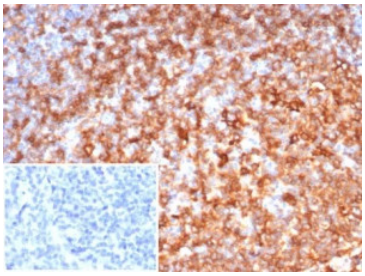
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rHLA-DRB/7198
Purity	Protein A/G affinity
UniProt	P01911
Localization	Cell surface
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This HLA-DRB Antibody rHLA-DRB/7198 / HLA-DR Beta Chain Antibody is available for research use only.



HLA-DRB Antibody rHLA-DRB/7198 in Human Tissues and Raji B Lymphoma Cells WB. Western blot testing of human 1) spleen, 2) intestine, 3) lung tissue and 4) Raji B lymphoma cell lysates with HLA-DRB Antibody clone rHLA-DRB/7198. A strong, discrete band is detected at approximately 28-29 kDa in all four samples, consistent with the expected molecular weight of the HLA-DR beta-chain component.



HLA-DRB Antibody rHLA-DRB/7198 Shows Human-Specific Detection in Intestine and Spleen WB. Western blot testing of human, mouse, rat, guinea pig and rabbit intestine and spleen tissue lysates with HLA-DRB Antibody clone rHLA-DRB/7198. Strong, discrete bands are detected at approximately 27-28 kDa in human intestine and spleen, while no corresponding signal is observed in the tested mouse, rat, guinea pig or rabbit samples, demonstrating selective detection of the human HLA-DR beta-chain component under the tested conditions.



HLA-DRB Antibody rHLA-DRB/7198 in Human Tonsil IHC. Immunohistochemistry staining of FFPE human tonsil tissue with HLA-DRB Antibody clone rHLA-DRB/7198. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before testing. Strong, widespread HLA-DRB immunoreactivity is observed in numerous lymphoid cells throughout the tonsil, with prominent membrane-associated staining. The inset shows the secondary-only negative control, in which PBS was substituted for the primary antibody and minimal staining is observed.

Description

HLA-DRB Antibody rHLA-DRB/7198 / HLA-DR Beta Chain Antibody recognizes the beta-chain component of HLA-DR, a major histocompatibility complex (MHC) class II molecule central to antigen presentation and adaptive immunity. HLA-DR is a heterodimeric cell-surface glycoprotein composed of an alpha chain encoded by HLA-DRA and a beta chain encoded by an HLA-DRB gene. Association of these two chains creates a peptide-binding complex that presents antigen-derived peptides to CD4-positive T cells, providing an essential molecular interface between antigen-presenting cells and the adaptive immune system.

The HLA-DR beta-chain family includes HLA-DRB1 as well as the additional HLA-DRB3, HLA-DRB4 and HLA-DRB5 genes that occur on particular HLA haplotypes. HLA-DRB1 is highly polymorphic, and sequence variation within its extracellular region contributes substantially to the diversity of peptides that can be accommodated by HLA-DR molecules. This genetic diversity is central to HLA-mediated immune recognition and contributes to differences in antigen presentation among individuals.

HLA-DR complexes are prominently expressed by professional antigen-presenting cells, including B lymphocytes, monocytes, macrophages and dendritic cells, while expression can also be induced on other cell populations during immune activation. Peptides displayed by HLA-DR are surveyed by CD4-positive T cells through interactions involving the T cell receptor and CD4 coreceptor. HLA-DR beta-chain biology is therefore relevant to studies of antigen presentation, immune-cell activation, infectious disease, autoimmunity, transplantation and tumor immunology.

NSJ Bioreagents provides clone rHLA-DRB/7198 as a recombinant mouse HLA-DRB Antibody generated against full-length human HLA-DRB1 protein. The antibody recognizes an approximately 28 kDa HLA-DR beta-chain component and is characterized as non-cross-reactive with HLA-DP and HLA-DQ. Its beta-chain recognition distinguishes this reagent from antibodies directed against the HLA-DRA alpha chain or conformational determinants of the assembled HLA-DR complex. An HLA-DR Beta Chain Antibody can support research into MHC class II expression, antigen presentation and mechanisms connecting HLA-DR biology with CD4 T cell-mediated adaptive immunity.

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-DRB Antibody rHLA-DRB/7198 / HLA-DR Beta Chain Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human HLA-DRB1 protein was used as the immunogen for the HLA-DRB Antibody rHLA-DRB/7198 antibody.

Storage

Aliquot the HLA-DRB Antibody rHLA-DRB/7198 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

HLA-DRB antibody, HLA-DR Beta Chain antibody, MHC Class II DR Beta antibody, HLA-DR Beta Subunit antibody, HLA Class II DR Beta Chain antibody

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