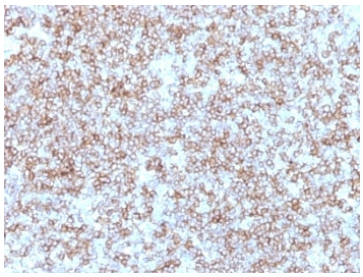
HLA-DR + HLA-DP Antibody Bra-14 / MHC Class II Antibody [clone Bra-14] (V2580)

Catalog No.	Formulation	Size
V2580-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2580-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2580SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2580IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Citations (1)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG3, kappa
Clone Name	Bra-14
Purity	Protein G affinity chromatography
UniProt	P04440, P01903
Localization	Cell surface
Applications	FACS IF IHC-P
Limitations	This HLA-DR + HLA-DP Antibody Bra-14 / MHC Class II Antibody is available for research use only.



HLA-DR + HLA-DP Antibody Bra-14 in Human Tonsil IHC. Immunohistochemistry testing of HLA-DR + HLA-DP Antibody Bra-14 / MHC Class II 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 at RT for 20 min. Strong HLA-DR/HLA-DP immunoreactivity is observed in numerous cells throughout the lymphoid tissue, consistent with the distribution of MHC class II-positive immune cells.

Description

HLA-DR + HLA-DP Antibody Bra-14 / MHC Class II Antibody recognizes a common epitope shared by human HLA-DR and HLA-DP molecules. HLA-DR and HLA-DP are members of the classical major histocompatibility complex (MHC) class II family and function in the presentation of processed antigenic peptides to CD4-positive T lymphocytes. Recognition of peptide-MHC class II complexes by T cell receptors is a central event in adaptive immunity, contributing to helper T cell activation and the coordination of downstream immune responses.

HLA-DR and HLA-DP are heterodimeric transmembrane glycoproteins composed of non-covalently associated alpha and beta chains. Both chains contribute to formation of the extracellular peptide-binding groove. Antigens internalized by antigen-presenting cells are processed primarily within endosomal and lysosomal compartments, where resulting peptides can be loaded onto MHC class II molecules. Stable peptide-HLA complexes are subsequently transported to the plasma membrane for recognition by CD4-positive T cells.

Expression of HLA class II molecules is particularly associated with professional antigen-presenting cells, including B lymphocytes, monocytes, macrophages and dendritic cells. MHC class II expression can also occur on additional cell populations following immune activation or inflammatory signaling. Regulation of HLA-DR and HLA-DP expression therefore influences antigen-presenting capacity and interactions between immune cells, making these molecules important in studies of immune activation, inflammation and adaptive immune regulation.

An antibody recognizing both HLA-DR and HLA-DP provides a distinct approach to MHC class II research. It offers broader recognition than an antibody restricted to either the HLA-DR or HLA-DP locus while remaining more selective than pan-HLA class II reagents that recognize HLA-DP, HLA-DQ and HLA-DR. This intermediate specificity can complement both locus-specific and pan-class II antibodies in studies of antigen presentation, transplantation, autoimmune disease, infectious disease and tumor immunology.

Clone Bra-14 is a mouse monoclonal antibody generated using human REH cells as the immunogen and is characterized as recognizing a common epitope of human HLA-DR and HLA-DP. NSJ Bioreagents provides this HLA-DR + HLA-DP Antibody for research into MHC class II biology, antigen presentation and adaptive immunity. An MHC Class II Antibody recognizing HLA-DR and HLA-DP can support investigation of class II-positive cells and CD4 T cell-mediated immune recognition.

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

Application Notes

Optimal dilution of the HLA-DR + HLA-DP Antibody Bra-14 / MHC Class II Antibody should be determined by the researcher.

1. Staining of formalin/paraffin tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, 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

Human REH cells were used as the immunogen for the HLA-DR + HLA-DP Antibody Bra-14.

Storage

Store the HLA-DR + HLA-DP Antibody Bra-14 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

HLA-DR + HLA-DP antibody, HLA-DP + HLA-DR antibody, HLA-DR/DP antibody, MHC Class II antibody, HLA Class II antibody

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