abcam

Product datasheet

Anti-HLA-DR antibody [HLA-Pan/2967R] - BSA and Azide free ab259258

Recombinant

6 Images

Overview

Product name	Anti-HLA-DR antibody [HLA-Pan/2967R] - BSA and Azide free
Description	Rabbit monoclonal [HLA-Pan/2967R] to HLA-DR - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Protein Array, Flow Cyt, ICC/IF, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Tissue, cells or virus corresponding to Human HLA-DR. Non-T, non-B human acute lymphoblastic leukemia REH6 cell line. Uniprot Accession: P04440; P01908; P01909; P01920; P01903.
Positive control	ICC/IF: Raji and Ramos cells; Flow Cyt: Raji cells; IHC-P: Human tonsil tissue; WB: Ramos cell lysate.
General notes	ab259258 is the carrier-free version of **ab257320**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes

Purity	Protein A/G purified
Purification notes	Purified from Bioreactor Concentrate.
Clonality	Monoclonal
Clone number	HLA-Pan/2967R
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab259258 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

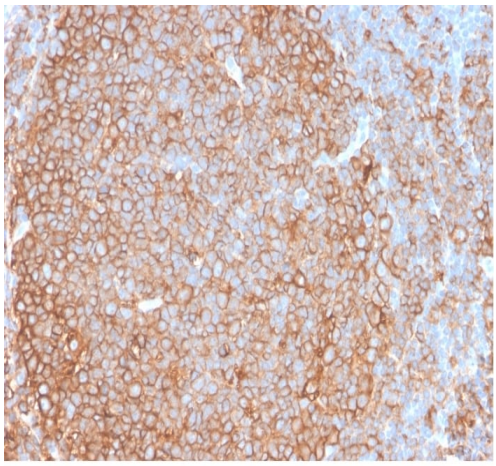
Application	Abreviews	Notes
Protein Array		Use at an assay dependent concentration.
Flow Cyt		Use 1-2µg for 10^6 cells.
ICC/IF		Use a concentration of 1 - 2 µg/ml.
IHC-P		Use a concentration of 1 - 2 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. 30 minutes at RT

Target

Function Binds peptides derived from antigens that access the endocytic route of antigen presenting cells (APC) and presents them on the cell surface for recognition by the CD4 T-cells. The peptide binding cleft accommodates peptides of 10-30 residues. The peptides presented by MHC class II molecules are generated mostly by degradation of proteins that access the endocytic route, where they are processed by lysosomal proteases and other hydrolases. Exogenous antigens that have been endocytosed by the APC are thus readily available for presentation via MHC II molecules, and for this reason this antigen presentation pathway is usually referred to as exogenous. As membrane proteins on their way to degradation in lysosomes as part of their normal turn-over are also contained in the endosomal/lysosomal compartments, exogenous antigens must compete with those derived from endogenous components. Autophagy is also a source of endogenous peptides, autophagosomes constitutively fuse with MHC class II loading compartments. In addition to APCs, other cells of the gastrointestinal tract, such as epithelial cells, express MHC class II molecules and CD74 and act as APCs, which is an unusual trait of the GI tract. To produce a MHC class II molecule that presents an antigen, three MHC class II molecules (heterodimers of an alpha and a beta chain) associate with a CD74 trimer in the ER to form an heterononamer. Soon after the entry of this complex into the endosomal/lysosomal system where antigen processing occurs, CD74 undergoes a sequential degradation by various proteases, including CTSS and CTSL, leaving a small fragment termed CLIP (class-II-associated invariant chain peptide). The removal of CLIP is facilitated by HLA-DM via direct binding to the alpha-beta-CLIP complex so that CLIP is released. HLA-DM stabilizes MHC class II molecules until primary high affinity antigenic peptides are bound. The MHC II molecule bound to a peptide is then transported to the cell membrane surface. In B-cells, the interaction between HLA-DM and MHC class II molecules is regulated by HLA-DO. Primary dendritic cells (DCs) also to express HLA-

	DO. Lysosomal miroenvironment has been implicated in the regulation of antigen loading into MHC II molecules, increased acidification produces increased proteolysis and efficient peptide loading.
Sequence similarities	Belongs to the MHC class II family. Contains 1 Ig-like C1-type (immunoglobulin-like) domain.
Post-translational modifications	Ubiquitinated by MARCH1 or MARCH8 at Lys-244 leading to down-regulation of MHC class II. When associated with ubiquitination of the beta subunit of HLA-DR: HLA-DRB4 'Lys-254', the down-regulation of MHC class II may be highly effective.
Cellular localization	Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus > trans-Golgi network membrane. Endosome membrane. Lysosome membrane. Late endosome membrane. The MHC class II complex transits through a number of intracellular compartments in the endocytic pathway until it reaches the cell membrane for antigen presentation.

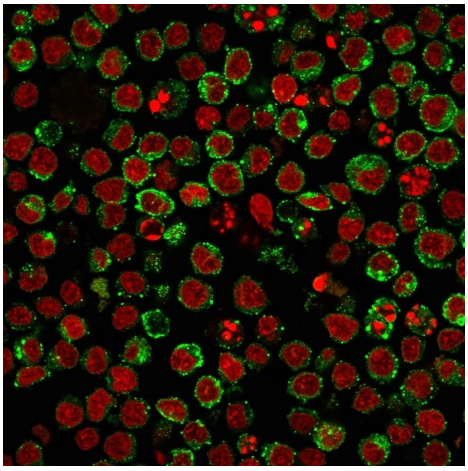
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [HLA-Pan/2967R] - BSA and Azide free (ab259258)

Immunohistochemical analysis of formalin fixed, paraffin-embedded human tonsil staining HLA-DR with **ab257320** at 2µg/ml for 30 minutes at room temperature.

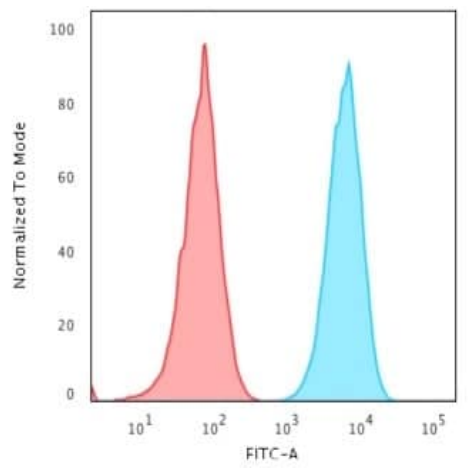
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (**ab257320**).



Immunocytochemistry/ Immunofluorescence - Anti-HLA-DR antibody [HLA-Pan/2967R] - BSA and Azide free (ab259258)

Immunocytochemistry/ Immunofluorescent analysis of Ramos cells staining HLA-DR with **ab257320** at 2µg/ml, followed by a goat anti-rabbit IgG-CF488 secondary (blue) and an isotype control (red).

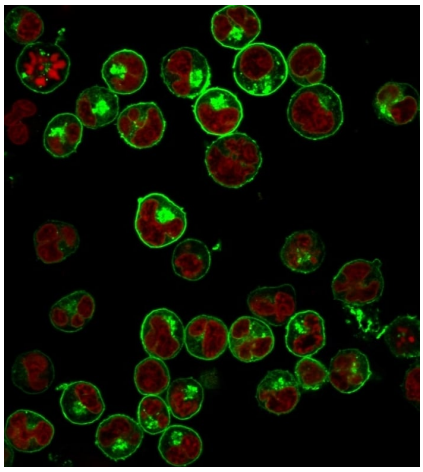
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (**ab257320**).



Flow Cytometry - Anti-HLA-DR antibody [HLA-Pan/2967R] - BSA and Azide free (ab259258)

Flow Cytometric analysis of Raji cells staining HLA-DR with **ab257320**, followed by a goat anti-rabbit IgG-CF488 secondary antiobdy (blue). Isotype control (red).

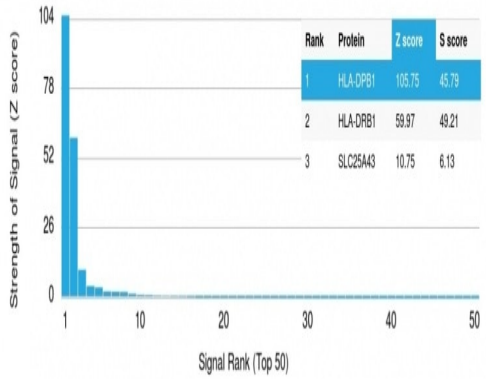
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (**ab257320**).



Immunocytochemistry/ Immunofluorescence - Anti-HLA-DR antibody [HLA-Pan/2967R] - BSA and Azide free (ab259258)

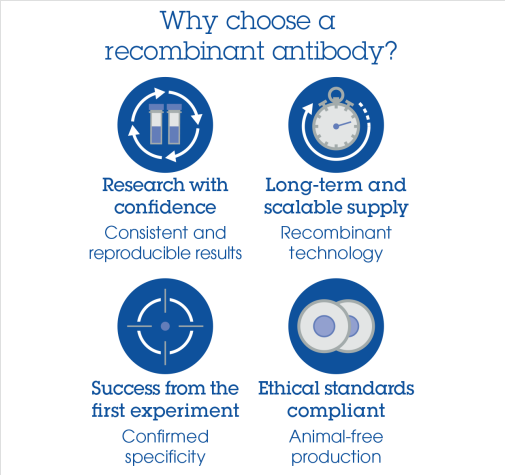
Immunocytochemistry/ Immunofluorescent analysis of Ramos cells staining HLA-DR with **ab257320** at 2µg/ml, followed by a goat anti-rabbit IgG-CF488 secondary (green). Nuceli stained with reddot (red).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (**ab257320**).



Protein Array - Anti-HLA-DR antibody [HLA-Pan/2967R] - BSA and Azide free (ab259258)

Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



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