abcam

ab157330

PerCP/Cy5.5® Anti-HLA-DR antibody [L243]

Anti-HLA-DR antibody [L243] conjugated to PerCP/Cy5.5® - suitable for flow cytometry, and reacts with human samples. Clone [L243] is a mouse monoclonal antibody and one of the most commonly used clones for flow cytometry.

Design your panel with our interactive flow cytometry panel builder. Click here.

Lab Essentials

Key facts

Isotype	IgG2a
Host species	Mouse
Conjugation	PerCP/Cy5.5®
Excitation/Emission	Ex: 482nm, Em: 695nm
Storage buffer	pH: 7.4 Preservative: 0.1% Sodium azide Constituents: PBS, 0.2% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing HLA-DRA protein. The exact immunogen used to generate this antibody is proprietary information. Database link P01903
Clone number	L243
Purification technique	Size-exclusion chromatography
Specificity	ab157330 recognizes specifically HLA-DR molecules, both peptide-loaded and empty.
Purification notes	The purified antibody is conjugated with tandem dye PerCP-Cy5.5® under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	4 µL for 10^6 Cells
Notes	Use 4 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.

Expected

Species	Primates
Dilution info	4 µL for 10^6 Cells
Notes	Use 4 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.

Species	Dog
Dilution info	4 µL for 10^6 Cells
Notes	Use 4 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.

Target data

See full target information HLA-DRA

Function

An alpha chain of antigen-presenting major histocompatibility complex class II (MHCII) molecule. In complex with the beta chain HLA-DRB, displays antigenic peptides on professional antigen presenting cells (APCs) for recognition by alpha-beta T cell receptor (TCR) on HLA-DR-restricted CD4-positive T cells. This guides antigen-specific T-helper effector functions, both antibody-mediated immune response and macrophage activation, to ultimately eliminate the infectious agents and transformed cells (PubMed:15265931, PubMed:15322540, PubMed:17334368, PubMed:22327072, PubMed:24190431, PubMed:27591323, PubMed:29884618, PubMed:31495665, PubMed:8145819, PubMed:9075930). Typically presents extracellular peptide antigens of 10 to 30 amino acids that arise from proteolysis of endocytosed antigens in lysosomes (PubMed:8145819). In the tumor microenvironment, presents antigenic peptides that are primarily generated in tumor-resident APCs likely via phagocytosis of apoptotic tumor cells or macropinocytosis of secreted tumor proteins (PubMed:31495665). Presents peptides derived from intracellular proteins that are trapped in autolysosomes after macroautophagy, a mechanism especially relevant for T cell selection in the thymus and central immune tolerance (PubMed:17182262, PubMed:23783831). The selection of the immunodominant epitopes follows two processing modes: 'bind first, cut/trim later' for pathogen-derived antigenic peptides and 'cut first, bind later' for autoantigens/self-peptides (PubMed:25413013). The anchor residue at position 1 of the peptide N-terminus, usually a large hydrophobic residue, is essential for high affinity interaction with MHCII molecules (PubMed:8145819).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

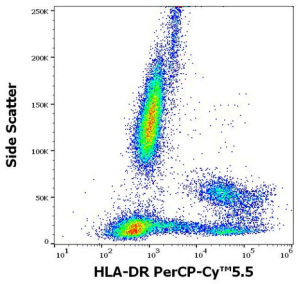
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

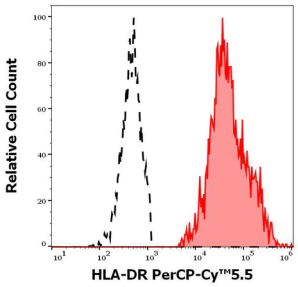
2 product images



Flow Cytometry - PerCP/Cy5.5® Anti-HLA-DR antibody [L243] (ab157330)

HLA-DR Flow Cytometry staining of Human peripheral blood using mouse Anti-HLA-DR antibody

Flow cytometry surface staining pattern of human peripheral whole blood stained using ab157330 (4 µl reagent / 100 µl of peripheral whole blood).



Flow Cytometry - PerCP/Cy5.5® Anti-HLA-DR antibody [L243] (ab157330)

HLA-DR Flow Cytometry staining of Human peripheral blood using mouse Anti-HLA-DR antibody

Separation of human monocytes (red-filled) from HLA-DR negative lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using ab157330 (4 µl reagent / 100 µl of peripheral whole blood).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.