abcam

ab23901

PE Anti-HLA DR + DP + DQ antibody [WR18]

Anti-HLA DR + DP + DQ antibody [WR18] conjugated to PE - suitable for flow cytometry, and reacts with human samples. Clone [WR18] is a mouse monoclonal antibody cited in 6 publications.

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Key facts

Isotype	IgG2a
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: PBS, 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing HLA-DRB1 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P01911
Clone number	WR18
Purification technique	Affinity purification Protein G
Specificity	ab23901 recognises the common b unit of HLA-Class 2 molecules. Stains B cells, monocytes and activated T cells.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	Use 10µl of the suggested working dilution to label 10^6 cells or 100µl whole blood. ab91363 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Target data

See full target information HLA-DRB4

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 a 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 microenvironment has been implicated in the regulation of antigen loading into MHC II molecules, increased acidification produces increased proteolysis and efficient peptide loading.

Storage

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

Appropriate long-term storage conditions	+4°C

Notes

Purified IgG conjugated to R. Phycoerythrin (RPE).

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

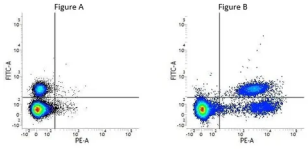
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - PE Anti-HLA DR + DP + DQ antibody [WR18] (ab23901)

HLA DR + DP + DQ Flow Cytometry staining of Human Peripheral blood mononuclear cells using mouse Anti-HLA DR + DP + DQ antibody

Figure A. FITC conjugated Mouse anti Human CD86 antibody, clone Bu63 and RPE conjugated Mouse IgG2a isotype control Figure B. FITC conjugated Mouse anti Human CD86 antibody, clone Bu63 and RPE conjugated Mouse anti Human HLA DP DQ DR antibody, clone WR18 (ab23901) used neat. All experiments performed on human Peripheral blood mononuclear cells in the presence of

human SeroBlock (BUF070A). Use 10µl of the suggested working dilution to label 10^6 cells or 100µl whole blood

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