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Product datasheet

Anti-HLA-DR antibody [L243] ab136320

★★★★★ 2 Abreviews 11 References 画像数 2

製品の概要

製品名	Anti-HLA-DR antibody [L243]
製品の詳細	Mouse monoclonal [L243] to HLA-DR
由来種	Mouse
特異性	ab136320 recognizes specifically HLA-DR molecules both peptide-loaded and empty.
アプリケーション	**適用あり:** Flow Cyt
種交差性	**交差種:** Human
免疫原	Tissue, cells or virus corresponding to Human HLA-DR. Human B lymphocytes.
ポジティブ・コントロール	Flow Cytometry: Human peripheral blood cells.
特記事項	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	pH: 7.40 Preservative: 0.1% Sodium azide Constituent: PBS
精製度	Protein A purified
特記事項（精製）	Purified from cell culture supernatant by protein A affinity chromatography. Purity: > 95% (by SDS-PAGE).
ポリ/モノ	モノクローナル
クローン名	L243
アイソタイプ	IgG2a

軽鎖の種類 kappa

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab136320の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt		Use a concentration of 1 - 4 µg/ml. **ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

ターゲット情報

機能 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.

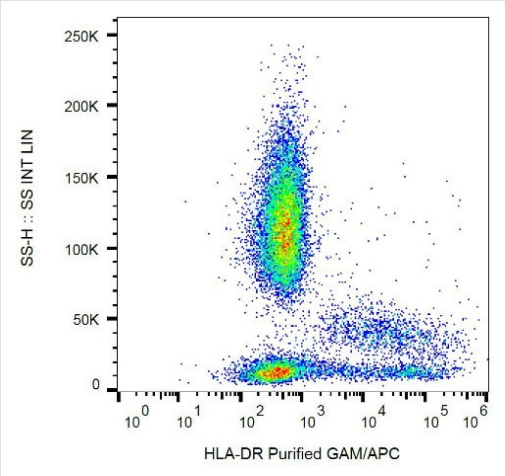
配列類似性 Belongs to the MHC class II family.
Contains 1 Ig-like C1-type (immunoglobulin-like) domain.

翻訳後修飾 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.

細胞内局在 Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus > trans-Golgi network membrane. Endosome membrane. Lysosome membrane. Late endosome membrane. The MHC

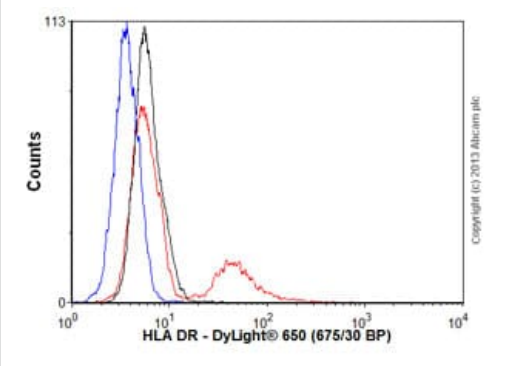
class II complex transits through a number of intracellular compartments in the endocytic pathway until it reaches the cell membrane for antigen presentation.

画像



Flow Cytometry - Anti-HLA-DR antibody [L243] (ab136320)

Flow Cytometry analysis of human peripheral blood cells labeling HLA DR with ab136320, followed by a Goat anti-mouse-APC secondary.



Flow Cytometry - Anti-HLA-DR antibody [L243] (ab136320)

Human peripheral blood lymphocytes stained with ab136320 (red line). Human whole blood was processed using a modified protocol based on Chow *et al*, 2005 (PMID: 16080188).

In brief, human whole blood was fixed in 4% formaldehyde (methanol-free) for 10 minutes at 22°C. Red blood cells were then lyzed by the addition of Triton X-100 (final concentration - 0.1%) for 15 minutes at 37°C. For experimentation, cells were treated with 50% methanol (-20°C) for 15 minutes at 4°C. Cells were then incubated with the antibody (ab136320, 0.1µg/1x10^6 cells) for 30 minutes at 4°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (**ab150113**) at 1/2000 dilution for 30 minutes at 4°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (**ab91361**, 0.1µg/1x10^6cells) used under the same conditions. Unlabeled sample (blue line) was also used as a control. Acquisition of >30,000 total events were collected using a solid-state 25mW red diode laser (635nm) and 675/30 bandpass filter. Gating strategy - peripheral blood lymphocytes.

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