

Product datasheet

Anti-MHC Class II antibody [NIMR-4] (Biotin) ab25207

製品の概要

製品名	Anti-MHC Class II antibody [NIMR-4] (Biotin)
製品の詳細	Rat monoclonal [NIMR-4] to MHC Class II (Biotin)
由来種	Rat
標識	Biotin
特異性	ab25207 recognises MHC Class II molecules.
アプリケーション	適用あり: Flow Cyt
種交差性	交差種: Mouse
免疫原	The details of the immunogen for this antibody are not available.

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). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.1% Sodium Azide Constituents: PBS
精製度	IgG fraction
ポリ/モノ	モノクローナル
クローン名	NIMR-4
アイソタイプ	IgG2b

アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab25207** in the following tested applications.

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

アプリケーション	Abreviews	特記事項
Flow Cyt		Use 1µg for 10 ⁶ cells. ab18542 - Rat monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

ターゲット情報

機能	<p>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 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.</p>
配列類似性	<p>Belongs to the MHC class II family. Contains 1 Ig-like C1-type (immunoglobulin-like) domain.</p>
細胞内局在	<p>Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus > trans-Golgi network membrane. Endosome membrane. Lysosome 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.</p>

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