



# Magic™ Anti-HLA-DR monoclonal antibody, clone BB4 [RPE] (DMAB5245)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Specificity</b>	Anti-Human HLA-DR Antigen reacts with the DRw52 determinant of the HLA-DR molecule. This specificity has been tested with transfectants expressing HLA-DRw52. Anti-Human HLA-DR Antigen, does not react with transfectants expressing HLA-DP antigen and HLA-DQ antigen. The antibody has been submitted to the 8th International Workshop on Human Leucocyte Differentiation Antigens 2000-2004.
<b>Immunogen</b>	B cells from a follicular lymphoma.
<b>Isotype</b>	IgG2a
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human
<b>Clone</b>	BB4
<b>Conjugate</b>	PE
<b>Format</b>	liquid form in buffer containing 1% bovine serum albumin (BSA) and 15 mmol/L NaN <sub>3</sub> , pH 7.2.
<b>Preservative</b>	15mmol/L Sodium Azide
<b>Storage</b>	Store in the dark at 2°C-8°C. Do not use after expiration date stamped on vial. If reagents are stored under any conditions other than those specified, the conditions must be verified by the user. There are no obvious signs to indicate instability of this product.

## BACKGROUND

<b>Introduction</b>	The main function of human leucocyte antigen (HLA) molecules is to present antigenic peptides
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to the T-cell receptor, thereby regulating the induction of the immune response. The HLA molecules are encoded by a cluster of tightly linked genes located on the short arm of chromosome 6. Three classes of HLA molecules (I, II and III) have been denoted. Human class II genes are located in the HLA-D region, consisting of three families called DQ, DP and DR. The products of class II genes form a heterodimeric transmembrane protein, consisting of a heavy (~34 kDa)  $\alpha$ -chain and a light (~28 kDa)  $\beta$ -chain. The DR $\alpha$ -chain is expressed from one non-polymorphic gene, whereas the DR  $\beta$ -chain originates from nine highly polymorphic genes. HLA-DR antigen is constitutively expressed on antigen-presenting cells, such as B lymphocytes, monocytes and dendritic cells but can also be detected on activated T lymphocytes and activated granulocytes. Occasionally, natural killer cells express HLA-DR antigen. The antigen has been found expressed in cases of different types of acute lymphoblastic leukaemias, acute myeloid leukaemia except AML-M3, chronic lymphoblastic leukaemias, chronic myeloid leukaemia and B- and T-cell non-Hodgkin's leukaemias. However, the antigen is normally not present on non-haematopoietic tumours and multiple myelomas.

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**Keywords**

DR alpha chain precursor; DRB1; DRB4; HLA class II histocompatibility antigen; HLA class II histocompatibility antigen DR alpha chain; HLA DR1B; HLA DR3B; HLADRA; HLA DRA1; HLA DRB1; HLA DRB3; HLA DRB4; HLA DRB5; HLADR4B; HLADRA1; HLADRB; Major histocompatib

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