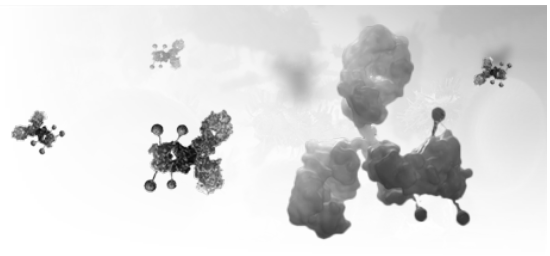

Magic™ Anti-HLA-DR monoclonal antibody, clone DR4/44 (DMAB5243)

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

PRODUCT INFORMATION

Specificity	Anti-HumanHLA-DP, DQ, DR Antigen, reacts with the β-chain of the α β heterodimer of allproducts of the gene families DP, DQ and DR. The antibody was included in theFirst International Workshop and Conference on Monoclonal Antibodies to HumanMHC Class II Antigens and its specificity and other characteristics wereascertained by a variety of techniques, including reactivity with isolated antigen,immunoblotting, and labelling of transfected cells. In normal peripheralblood the antibody stains B cells and most monocytes but is unreactive withnormal T cells and polymorphs. It will, however, stain activated T cells inperipheral blood. Anti-HLA-DP, DQ, DR Antigen does not react witherythrocytes and megakaryocytes. Immunohistochemical analysis demonstratedthat Anti-HLA-DP, DQ, DR, Antigen, labels AML (5/5 cases), B cell ALL (3/3cases), chronic leukaemias and lymphomas of B and T cell type (3/3 cases and45/46 cases) and CML in myeloid blast crisis (1/1 case). The antibody doesnot label multiple myeloma (0/3 cases) but shows weak staining of a minorityof cells in metastatic breast carcinomas (2/5 cases).
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human
Clone	DR4/44
Conjugate	Unconjugated
Procedure	Flow Cytometry Antibodies
Format	liquidform in buffer containing 1% bovine serum albumin (BSA) and 15 mmol/L NaN3,pH 7.2.
Preservative	15mmol/L Sodium Azide
Storage	Store in the dark at 2°C-8°C. Do not use after expiration datestamped on vial. If reagents are stored under any conditions other than thosespecified, the conditions must be verified by the user. There are no obvioussigns to indicate instability of this pr
Warnings	1. Forprofessional users. 2. Thisproduct contains sodium azide (NaN3), a chemical highly toxic inpure form. At product

concentrations, though not classified as hazardous,sodium azide may react with lead and copper plumbing to form highly explosivebuild-ups of metal azides. Upon disposal, flush with large volumes of waterto prevent metal azide build-up in plumbing.
3. Aswith any product derived from biological sources, proper handling proceduresshould be used.

BACKGROUND

Introduction

Thehuman leucocyte antigen (HLA) system, originally discovered as the result ofa transfusion reaction, is now known to play a crucial role in many areas ofclinical medicine. The HLA molecules are encoded by a cluster of tightlylinked genes located on the short arm of chromosome 6. Based on some of thestructural and functional characteristics of the genes, the region has beendivided into three: HLA class I, Class II and class III regions. The A and Bgenes of the HLA class II, DP, DQ and DR encode a heterodimer formed by twononcovalently associated α and β chains of approximately 34 and 28 kDarespectively. The main function of the HLA-DP, DQ and DR molecules is topresent antigenic peptides, mostly of exogenous nature, to CD4+ T-cells. HLAmolecules are also known to be associated with a variety of autoimmune,non-autoimmune and infectious diseases and to restrict the antibody responseto certain antigens and vaccines. HLA-DP, DQ and DR molecules areconstitutively expressed on antigen-presenting cells (APC) such as Blymphocytes, monocytes and dendritic cells but can also be detected oncytototoxic/suppressor T lymphocytes and activated granulocytes. It isuncertain whether HLA-DP, DQ and DR antigens are also expressed on activatedplatelets. HLA class II expression can also be induced on cells and tissues suchas fibroblasts and endothelial cells as a result of activation and/or bycertain cytokines such as γ-interferon, tumor necrosis factor and interleukin-10.The antigen has been found on the cell surface of leukaemic blasts from casesof B-cell acute lymphoblastic leukaemia (ALL), T-cell pre-ALL, acute myeloidleukaemia (AML) except AML-M3, and chronic B and T cell leukaemia, chronicmyeloid leukaemia (CML) in blast crisis and lymphomas of B cell and celltype. HLA-DP, DQ, DR antigen is normally not present on nonhaematopoietic tumorsand multiple myeloma.

Keywords

DP beta1 chain; DP(W4) beta chain; CD; CELIAC 1; CELIAC1; DPB1; DPB1_; DQ A1; DRB1; DRB4;FLJ27088; FLJ27328; GSE; HLA class II histocompatibility antigen; HLA classII histocompatibility antigen DR 1 beta; HLA class II histocompatibilityantigen DR alpha; H