

Monoclonal Antibody to HLA class II DR beta 1 / HLA-DRB1 - PE

Alternate names: DR-1, DR1, DRB1-1 beta chain, HLA class II histocompatibility antigen, MHC class II antigen DRB1

Catalog No.: AM03063RP-N

Quantity: 0.1 mg

Concentration: 0.1 mg/ml

Background: HLA-DR1 belongs to the HLA class II beta chain paralogues. The MHC Class II molecule is a heterodimer consisting of an alpha (DRA) and a beta chain (DRB), both anchored in the membrane. It plays a central role in the immune system by presenting peptides derived from extracellular proteins. MHC Class II molecules are expressed in antigen presenting cells (APC). The beta chain is approximately 26-28 kDa. Within the DR molecule the beta chain contains all the polymorphisms specifying the peptide binding specificities. Hundreds of DRB1 alleles have been described and typing for these polymorphisms is routinely done for bone marrow and kidney transplantation.

Uniprot ID: [P04229](#)

NCBI: [9606](#)

Host / Isotype: Mouse / IgG2b

Clone: MEM-267

Immunogen: Purified, insoluble DR1 beta chain (DRB1*0101) expressed in E. coli inclusion bodies.

Format: **State:** Liquid purified IgG fraction.

Purification: Size-Exclusion Chromatography.

Buffer System: PBS containing 15 mM Sodium Azide as preservative and 0.2% (w/v) high-grade BSA (Protease free) as stabilizer.

Label: PE – Conjugated with R-Phycoerythrin under optimum conditions

Applications: Suitable for Flow Cytometry analysis: 5 µg/ml.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: Reacts with immature dendritic cells that express empty cell surface MHC molecules, but not cells that express predominantly peptide loaded forms; reacts specifically with the empty but not peptide-loaded form of HLA-DR1. This antibody specifically binds to the empty but not peptide-loaded form of HLA-DR1. DR is the isotypes of human MHC Class II molecules expressed on antigen-presenting cells (APC; dendritic cells, B lymphocytes, monocytes, macrophages).

Species: Human.

Other species not tested.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

Storage:

Store the antibody in the dark at 2-8°C.

DO NOT FREEZE!

Avoid prolonged exposure to light.

Shelf life: one year from despatch.

General Readings:

1. Carven GJ, Chitta S, Hilgert I, Rushe MM, Baggio RF, Palmer M, et al. Monoclonal antibodies specific for the empty conformation of HLA-DR1 reveal aspects of the conformational change associated with peptide binding. *J Biol Chem.* 2004 Apr 16;279(16):16561-70. Epub 2004 Feb 2. PubMed PMID: 14757758.
2. Potolicchio I, Chitta S, Xu X, Fonseca D, Crisi G, Horejsi V, et al. Conformational variation of surface class II MHC proteins during myeloid dendritic cell differentiation accompanies structural changes in lysosomal MHC. *J Immunol.* 2005 Oct 15;175(8):4935-47. PubMed PMID: 16210595.

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