

TECHNICAL DATA SHEET

CyFlow™ HLA-DR1 (empty) Purified Anti-Hu; Clone MEM-267

REF AP053716

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	HLA-DR1 (empty)
Alternative Names	—
Clone	MEM-267
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG2b
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Purified, insoluble DR1 β chain (DRB1*0101) expressed in E. coli inclusion bodies

Contact Information:

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Specificity

The mouse monoclonal antibody MEM-267 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).

Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Western blot
- Enzyme-linked immunosorbent assay

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH $\approx$ 7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

HLA-DR1 belongs to the HLA class II β chain paralogues. The MHC Class II molecule is a heterodimer consisting of an α (DRA) and a β 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 β chain is approximately 26-28 kDa. Within the DR molecule the β 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.

References

- Carven GJ, Chitta S, Hilgert I, Rushe MM, Baggio RF, Palmer M, Arenas JE, Strominger JL, Horejsi V, Santambrogio L, Stern LJ: 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. < PMID: 14757758 >

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- Potolicchio I, Chitta S, Xu X, Fonseca D, Crisi G, Horejsi V, Strominger JL, Stern LJ, Raposo G, Santambrogio L: Conformational variation of surface class II MHC proteins during myeloid dendritic cell differentiation accompanies structural changes in lysosomal MIIC. J Immunol. 2005 Oct 15; 175(8):4935-47. < PMID: 16210595 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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