



1P-435-C100

## Monoclonal Antibody to HLA-DR1 (empty) Phycoerythrin (PE) conjugated (0.1 mg)

<b>Clone:</b>	MEM-267
<b>Isotype:</b>	Mouse IgG2b
<b>Specificity:</b>	The 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).
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Purified, insoluble DR1 beta chain (DRB1*0101) expressed in E. coli inclusion bodies.
<b>Species Reactivity:</b>	Human
<b>Preparation:</b>	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
<b>Concentration:</b>	0.1 mg/ml
<b>Storage Buffer:</b>	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
<b>Storage / Stability:</b>	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis. Suggested working dilution is 5 µg/ml. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	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.
<b>References:</b>	*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. *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.

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