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## HLA-DR (L243) Mouse mAb (PE Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

<b>Applications:</b> FC-FP, FC-L	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Mouse IgG2a kappa	<b>UniProt ID:</b> #P01903	<b>Entrez-Gene Id:</b> 3122
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<b>Product Usage Information</b>	<b>Application</b> Flow Cytometry (Fixed/Permeabilized) Flow Cytometry (Live)	<b>Dilution</b> 1:20 1:20
<b>Storage</b>	Supplied in 10 mM NaH <sub>2</sub> PO <sub>4</sub> , 150 mM NaCl, 0.09% NaN <sub>3</sub> , 0.1% gelatin, pH 7.2. This product is stable for 12 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity/Sensitivity</b>	HLA-DR (L243) Mouse mAb (PE Conjugate) recognizes endogenous levels of total HLA-DR proteins. This antibody is specific to an epitope on the alpha subunit of the heterodimeric HLA-DR protein and binds a different epitope than the LN3 antibody clone. It does not cross-react with HLA-DP or HLA-DQ.	
<b>Source / Purification</b>	This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.	
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometric analysis in human cells.	
<b>Background</b>	<p>The human leukocyte antigen (HLA) system is a gene complex encoding the major histocompatibility complex (MHC) proteins in humans. These cell surface proteins are responsible for the regulation of antigen-specific immunity in humans. HLA genes are highly polymorphic, allowing them to fine-tune the adaptive immune response. HLAs corresponding to MHC class I (HLA-A, B, and C) present small peptide antigens from inside the cell, approximately 8 to 10 amino acids in length, to CD8<sup>+</sup> T lymphocytes in order to activate a cytotoxic T cell response. HLAs corresponding to MHC class II (HLA-DP, DM, DO, DQ, and DR) present antigens from outside of the cell, approximately 15 to 24 residues in length, to CD4<sup>+</sup> T helper cells, which in turn secrete cytokines and stimulate B cells to produce antibodies to that specific antigen. HLAs corresponding to MHC class III encode components of the complement system (1,2).</p> <p>The L243 antibody reacts with a member of the human MHC Class II antigens, HLA-DR. The HLA-DR antigen is expressed on B lymphocytes, activated T lymphocytes, activated NK cells, monocytes, macrophages, other antigen presenting cells, and progenitor cells (3).</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>Marsh, S.G. et al. (2005) <i>Hum Immunol</i> 66, 571-636.</li> <li>Shiina, T. et al. (2004) <i>Tissue Antigens</i> 64, 631-49.</li> </ol>	

**Species Reactivity** Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Applications Key** **FC-FP:** Flow Cytometry (Fixed/Permeabilized) **FC-L:** Flow Cytometry (Live)

**Cross-Reactivity Key** **H:** Human

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