

## TECHNICAL DATA SHEET

### CyFlow™ HLA-DR APC-Cy7 Anti-Hu; Clone L243

**REF** AM235286

**For Research Use Only.**

**Not for use in diagnostic or therapeutic procedures.**

### Specifications

|                                    |                                 |
|------------------------------------|---------------------------------|
| <b>Antigen</b>                     | HLA-DR                          |
| <b>Alternative Names</b>           | —                               |
| <b>Clone</b>                       | L243                            |
| <b>Clonality</b>                   | monoclonal                      |
| <b>Format</b>                      | APC-Cy7                         |
| <b>Host / Isotype</b>              | Mouse / IgG2a                   |
| <b>Species Reactivity</b>          | Human, Non-Human Primates   Dog |
| <b>Negative Species Reactivity</b> | —                               |
| <b>Quantity</b>                    | 100 tests                       |
| <b>Immunogen</b>                   | Human B lymphocytes             |

### Specificity

The mouse monoclonal antibody L243 recognizes specifically HLA-DR molecules, both peptide-loaded and empty. It is expressed on antigen-presenting cells (dendritic cells, B lymphocytes, monocytes, macrophages).

#### Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)

## Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 4 µl reagent / 100 µl of whole blood or 10<sup>6</sup> cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

## Storage Buffer

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

## Storage and Stability

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

## Background Information

HLA-DR, a member of MHC class II glycoproteins, that bind intracellularly processed peptides and present them to the Th cells, is composed of 36 kDa α chain and 27 kDa β chain, both anchored in the plasma membrane. Together with other MHC II molecules HLA-DR plays a central role in the immune system.

## References

- Coral S, Pucillo C, Leonardi A, Fonsatti E, Altomonte M, Maio M: Triggering of HLA-DR antigens differentially modulates tumor necrosis factor alpha release by B cells at distinct stage of maturation. Cell Growth Differ. 1997 May; 8(5):581-8. < PMID: 9149909 >
- Cantin R, Martin G, Tremblay MJ: A novel virus capture assay reveals a differential acquisition of host HLA-DR by clinical isolates of human immunodeficiency virus type 1 expanded in primary human cells depending on the nature of producing cells and the donor source. J Gen Virol. 2001 Dec; 82(12):2979-87. < PMID: 11714974 >
- Kalka-Moll WM, Tzianabos AO, Bryant PW, Niemeyer M, Ploegh HL, Kasper DL: Zwitterionic polysaccharides stimulate T cells by MHC class II-dependent interactions. J Immunol. 2002 Dec 1; 169(11):6149-53. < PMID: 12444118 >

---

### Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)

- Bouillon M, El Fakhry Y, Girouard J, Khalil H, Thibodeau J, Mourad W: Lipid raft-dependent and -independent signaling through HLA-DR molecules. J Biol Chem. 2003 Feb 28; 278(9):7099-107. < PMID: 12499388 >
- Muczynski KA, Ekle DM, Coder DM, Anderson SK: Normal human kidney HLA-DR-expressing renal microvascular endothelial cells: characterization, isolation, and regulation of MHC class II expression. J Am Soc Nephrol. 2003 May; 14(5):1336-48. < PMID: 12707403 >
- De Gassart A, Camosseto V, Thibodeau J, Ceppi M, Catalan N, Pierre P, Gatti E: MHC class II stabilization at the surface of human dendritic cells is the result of maturation-dependent MARCH I down-regulation. Proc Natl Acad Sci USA. 2008 Mar 4; 105(9):3491-6. < PMID: 18305173 >
- Swiatek-de Lange M, Rist W, Stahl HF, Weith A, Lenter MC: Comment on "MHC class II expression identifies functionally distinct human regulatory T cells". J Immunol. 2008 Mar 15; 180(6):3625. < PMID: 18322165 >
- Ivanov A, Beers SA, Walshe CA, Honeychurch J, Alduaij W, Cox KL, Potter KN, Murray S, Chan CH, Klymenko T, Erenpreisa J, Glennie MJ, Illidge TM, Cragg MS: Monoclonal antibodies directed to CD20 and HLA-DR can elicit homotypic adhesion followed by lysosome-mediated cell death in human lymphoma and leukemia cells. J Clin Invest. 2009 Aug; 119(8):2143-59. < PMID: 19620786 >

---

The Safety Data Sheet for this product is available at [www.sysmex-partec.com/services](http://www.sysmex-partec.com/services).

Cy and CyDye are trademarks of GE Healthcare.

---

---

**Contact Information:**

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)