

TECHNICAL DATA SHEET

CyFlow™ CD1c Purified Anti-Hu; Clone L161

REF BG068234

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD1c
Alternative Names	R7, CD1
Clone	L161
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Human thymocytes

Specificity

The mouse monoclonal antibody L161 recognizes CD1c antigen, a 43 kDa type I glycoprotein associated with β 2-microglobulin. It is expressed on cortical thymocytes (strongly), Langerhans cells, dendritic cells, B and some T cells.

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

Application

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

- Flow cytometry
- Immunoprecipitation
- Immunohistochemistry

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

CD1c (R7, BDCA1) together with CD1a and CD1b, belongs to group 1 of CD1 antigens. These non-classical MHC-like glycoproteins serve as antigen-presenting molecules for a subset of T cells that responds to specific lipids and glycolipids found in the cell walls of bacterial pathogens or self-glycolipid antigens such as gangliosides, and they have also roles in antiviral immunity. The trafficking routes of the particular CD1 types differ and correspond to their ability to bind and present different groups of antigens. CD1c is unique in its ability to present e.g. mycobacterial phosphoketides and polyisoprenoids. CD1c is the only CD1 isoform that has been shown to interact both with α/β and γ/δ T cells.

References

- Todate A, Chida K, Suda T, Imokawa S, Sato J, Ide K, Tsuchiya T, Inui N, Nakamura Y, Asada K, Hayakawa H, Nakamura H: Increased numbers of dendritic cells in the bronchiolar tissues of diffuse panbronchiolitis. Am J Respir Crit Care Med. 2000 Jul; 162(1):148-53. < PMID: 10903234 >
- Briken V, Jackman RM, Watts GF, Rogers RA, Porcelli SA: Human CD1b and CD1c isoforms survey different intracellular compartments for the presentation of microbial lipid antigens. J Exp Med. 2000 Jul 17; 192(2):281-8. < PMID: 10899914 >
- del C Salamone M, Mendiguren AK, Salamone GV, Fainboim L: Membrane trafficking of CD1c on activated T cells. J Leukoc Biol. 2001 Oct; 70(4):567-77. < PMID: 11590193 >

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

- Scharf L, Li NS, Hawk AJ, Garzón D, Zhang T, Fox LM, Kazen AR, Shah S, Haddadian EJ, Gumperz JE, Saghatelian A, Faraldo-Gómez JD, Meredith SC, Piccirilli JA, Adams EJ: The 2.5 Å structure of CD1c in complex with a mycobacterial lipid reveals an open groove ideally suited for diverse antigen presentation. Immunity. 2010 Dec 14; 33(6):853-62. < PMID: 21167756 >
- Gutzeit C, Raftery MJ, Peiser M, Tischler KB, Ulrich M, Eberhardt M, Stockfleth E, Giese T, Sauerbrei A, Morita CT, Schönrich G: Identification of an important immunological difference between virulent varicella-zoster virus and its avirulent vaccine: viral disruption of dendritic cell instruction. J Immunol. 2010 Jul 1; 185(1):488-97. < PMID: 20525895 >

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

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