

TECHNICAL DATA SHEET

CyFlow™ CD4 Azide Free Anti-Hu; Clone MEM-115

REF CD005302



Sysmex Partec GmbH
Arndtstraße 11 a-b
02826 Görlitz
Germany
Tel.: +49 3581 8746 0
E-mail: info@sysmex-partec.com
www.sysmex-partec.com

Distributed in the U.S.A. and Canada by:
Sysmex America, Inc.
577 Aptakistic Road
Lincolnshire, IL 60069, U.S.A.
Tel.: 1-888-879-7639 or 1-847-367-3503
E-mail: cytometry@sysmex.com
<https://us.sysmex-flowcytometry.com/>

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD4
Alternative Names	T4, Leu3a
Clone	MEM-115
Clonality	monoclonal
Format	Azide Free
Host / Isotype	Mouse / IgG2a
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/mL]
Immunogen	Human thymocytes and T lymphocytes

Specificity

The mouse monoclonal antibody MEM-115 recognizes an epitope in the D1 domain of CD4 antigen, a 55 kDa transmembrane glycoprotein expressed on a subset of T lymphocytes ("helper" T cells) and also on monocytes, tissue macrophages and granulocytes. It is negative in Western blotting even with non-reduced samples of cell lysates.

HLDA V—WS Code T T-CD04.09

Application

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

- Flow cytometry
- Immunoprecipitation
- Functional assays

Storage Buffer

The reagent is provided in azide-free phosphate buffered saline (PBS) solution, pH \approx 7.4; 0.2 μ m filter sterilized.

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

CD4 (T4, Leu3a) is a 55 kDa single-chain transmembrane glycoprotein expressed on a subset of T lymphocytes ("helper" T-cells) and also on monocytes, tissue macrophages and granulocytes. In extracellular region there are 4 immunoglobulin-like domains (1 Ig-like V-type and 3 Ig-like C2-type). Transmembrane region forms 25 aa, cytoplasmic tail consists of 38 aa. Domains 1, 2 and 4 are stabilized by disulfide bonds. The intracellular domain of CD4 is associated with p56Lck, a Src-like protein tyrosine kinase.

Warnings











Non-Hazardous Statement: This is not considered hazardous by the criteria in 29 CFR 1910.1200 or the General Classification guideline for preparations of the EU.

Safety Data Sheet Statement: Important information regarding the safe handling, transport, and disposal of this product is contained in the Safety Data Sheet (SDS). SDS are available at <http://www.sysmex-partec.com/services>, or at <https://us.sysmex-flowcytometry.com/> (U.S. customers only).

References

- Doussis IA, Gatter KC, Mason DY: CD68 reactivity of non-macrophage derived tumours in cytological specimens. *J Clin Pathol.* 1993 Apr; 46(4):334-6. < PMID: 7684403 >
- Millan J, Cerny J, Horejsi V, Alonso MA: CD4 segregates into specific detergent-resistant T-cell membrane microdomains. *Tissue Antigens.* 1999 Jan; 53(1):33-40. < PMID: 10082429 >
- Singer II, Scott S, Kawka DW, Chin J, Daugherty BL, DeMartino JA, DiSalvo J, Gould SL, Lineberger JE, Malkowitz L, Miller MD, Mitnaul L, Siciliano SJ, Staruch MJ, Williams HR, Zweerink HJ, Springer MS: CCR5, CXCR4, and CD4 are clustered and closely apposed on microvilli of human macrophages and T cells.. *J Virol.* 2001 Apr; 75(8):3779-90. < PMID: 11264367 >
- Foti M, Phelouzat MA, Holm A, Rasmusson BJ, Carpentier JL: p56Lck anchors CD4 to distinct microdomains on microvilli. *Proc Natl Acad Sci USA.* 2002 Feb 19; 99(4):2008-13. < PMID: 11854499 >
- Clapham PR, McKnight A: Cell surface receptors, virus entry and tropism of primate lentiviruses. . *J Gen Virol.* 2002 Aug; 83(8):1809-29. < PMID: 12124446 >
- Brdicková N, Brdicka T, Angelisová P, Horváth O, Spicka J, Hilgert I, Paces J, Simeoni L, Kliche S, Merten C, Schraven B, Horejsí V: LIME: a new membrane Raft-associated adaptor protein involved in CD4 and CD8 coreceptor signaling. *J Exp Med.* 2003 Nov 17; 198(10):1453-62. < PMID: 14610046 >
- Bosze S, Caccamo N, Majer Z, Mezo G, Dieli F, Hudecz F: In vitro T-cell immunogenicity of oligopeptides derived from the region 92-110 of the 16-kDa protein of *Mycobacterium tuberculosis*. *Biopolymers.* 2004; 76(6):467-76. < PMID: 15386261 >

Symbols

	Reference number		Contains sufficient for <n> tests
	For research use only		Temperature limit
	Batch code		Keep away from sunlight
	Manufacturer		Consult accompanying documents
	Use-by date		Unique device identifier