

TECHNICAL DATA SHEET

CyFlow™ CD3 zeta Purified Anti-Hu/Ms; Clone EM-26

REF CK521072

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD3 ζ (Phospho-Tyr72)
Alternative Names	—
Clone	EM-26
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human Mouse
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	A phospho specific peptide corresponding to the amino acids surrounding tyrosine 72 of mouse CD3 ζ linked to KLH

Specificity

The mouse monoclonal antibody EM-26 recognizes phosphorylated tyrosine 72 of CD3 ζ chain (CD247), which is a component of TCR/CD3 complex expressed on T cells.

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Application

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

- Flow cytometry
- Western blot
- Immunocytochemistry

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

CD3 complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 γ , CD3 δ , CD3 ϵ and CD3 ζ . These CD3 subunits are structurally related members of the immunoglobulins superfamily encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation.

References

- Dopfer EP, Schöpf B, Louis-Dit-Sully C, Dengler E, Höhne K, Klescová A, Prouza M, Suchanek M, Reth M, Schamel WW: Analysis of novel phospho-ITAM specific antibodies in a S2 reconstitution system for TCR-CD3 signalling. Immunol Lett. 2010 May 4; 130(1-2):43-50. < PMID: 20005895 >
- Borroto A, Arellano I, Dopfer EP, Prouza M, Suchanek M, Fuentes M, Orfao A, Schamel WW, Alarcón B: Nck recruitment to the TCR required for ZAP70 activation during thymic development. J Immunol. 2013 Feb 1; 190(3):1103-12. < PMID: 23267019 >

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

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