# TECHNICAL DATA SHEET

# CyFlow™ CD5 Purified
# Anti-Hu; Clone MEM-32

**REF** **CZ785326**

**For Research Use Only.**

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

## Specifications

| | |
|---|---|
| **Antigen** | CD5 |
| **Alternative Names** | Leu-1 |
| **Clone** | MEM-32 |
| **Clonality** | monoclonal |
| **Format** | Purified |
| **Host / Isotype** | Mouse / IgG1 |
| **Species Reactivity** | Human |
| **Negative Species Reactivity** | — |
| **Quantity [Concentration]** | 0.1 mg [ 1 mg/ml ] |
| **Immunogen** | Crude thymus membrane fraction |

## Specificity

The mouse monoclonal antibody MEM-32 recognizes the cell surface CD5 antigen, a 67kDa single-chain transmembrane glycoprotein expressed on mature T-lymphocytes, most of thymocytes and B-lymphocytes subset (B-1a lymphocytes).

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## Application

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

- Flow cytometry
- Immunoprecipitation
- Western blot
- Immunohistochmistry (paraffin-embedded sections)
- Enzyme-linked immunosorbent assay

## Storage Buffer

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

## Storage and Stability

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|---|---|
| **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

CD5 (T1) is a human cell surface T-lymphocyte single-chain transmembrane glycoprotein. CD5 is expressed on all mature T-lymphocytes, most of thymocytes, subset of B-lymphocytes and on many T-cell leukemias and lymphomas. It is a type I membrane glycoprotein whose extracellular region contains three scavenger receptor cysteine-rich (SRCR) domains. The CD5 is a signal transducing molecule whose cytoplasmic tail is devoid of any intrinsic catalytic activity. CD5 modulates signaling through the antigen-specific receptor complex (TCR and BCR). CD5 crosslinking induces extracellular Ca++ mobilization, tyrosine phosphorylation of intracellular proteins and DAG production. Preliminary evidence shows protein associations with ZAP-70, p56lck, p59fyn, PC-PLC, etc. CD5 may serve as a dual receptor, giving either stimulatory or inhibitory signals depending both on the cell type and development stage. In thymocytes and B1a cells seems to provide inhibitory signals, in peripheral mature T lymhocytes it acts as a costimulatory signal receptor. CD5 is the phenotypic marker of a B cell subpopulation involved in the production of autoreactive antibodies.Disease relevance: CD5 is a phenotypic marker for some B cell lymphoproliferative disorders (B-CLL, Hairy cell leukemia, etc.). The CD5+ popuation is expanded in some autoimmune disorders (Rheumatoid Arthritis, etc.). Herpes virus infections induce loss of CD5 expression in the expanded CD8+ human T cells.

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## References


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


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