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# CD7 (T-Cell Leukemia Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone B-F12 ]
Catalog # AH12623

## Product Information

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|---|---|
| **Application** | IF, FC |
| **Primary Accession** | P09564 |
| **Other Accession** | 924, 186820 |
| **Reactivity** | Human, Pig, Guinea Pig |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgG2a, kappa |
| **Clone Names** | B-F12 |
| **Calculated MW** | 25409 |

## Additional Information

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| **Gene ID** | 924 |
| **Other Names** | T-cell antigen CD7, GP40, T-cell leukemia antigen, T-cell surface antigen Leu-9, TP41, CD7, CD7 |
| **Application Note** | IF~~1:50~200 FC~~1:10~50 |
| **Storage** | Store at 2 to 8°C.Antibody is stable for 24 months. |
| **Precautions** | CD7 (T-Cell Leukemia Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | CD7 |
| **Function** | Transmembrane glycoprotein expressed by T-cells and natural killer (NK) cells and their precursors (PubMed:7506726). Plays a costimulatory role in T-cell activation upon binding to its ligand K12/SECTM1 (PubMed:10652336). In turn, mediates the production of cytokines such as IL-2 (PubMed:1709867). On resting NK-cells, CD7 activation results in a significant induction of interferon-gamma levels (PubMed:7506726). |
| **Cellular Location** | Membrane; Single-pass type I membrane protein. |
| **Tissue Location** | Expressed on T-cells and natural killer (NK) cells and their precursors. |

## Background

Recognizes a protein of 40kDa, identified as CD7 (also known as gp40, Leu9). CD7 is a member of the immunoglobulin gene superfamily. Its N-terminal amino acids 1-107 are highly homologous to Ig kappa-L chains whereas the carboxyl-terminal region of the extracellular domain is proline-rich and has been postulated to form a stalk from which the Ig domain projects. CD7 is expressed on the majority of immature and mature T-lymphocytes, and T cell leukemia. It is also found on natural killer cells, a small subpopulation of normal B cells and on malignant B cells. Cross-linking surface CD7 positively modulates T cell and NK cell activity as measured by calcium fluxes, expression of adhesion molecules, cytokine secretion and proliferation. CD7 associates directly with phosphoinositol 3'-kinase. CD7 ligation induces production of D-3 phosphoinositides and tyrosine phosphorylation.

## References

Knapp W et al. eds. Leukocyte typing IV, p341, Oxford University Press, Oxford, 1989.2. Miwa H, et al biological characteristics of CD7(+) acute leukemia. Leuk Lymphoma. 1996;21:239-44. 3. Rabinowich H, et al. J. Immunol. 1994 153(8):3504-3513.4. Emara M, et al. A human suppressor T-cell factor that inhibits T-cell replication by interaction with the IgM-Fc receptor (CD7). Hum Immunol. 1989;25(2):87-102.5. Thurlow PJ, A monoclonal antibody detecting a new human T cell antigen, HuLy-m2. Transplantation 1984, 38(2):143-147.6. Saxena A, et al. Biologic and clinical significance of CD7 expression in acute myeloid leukemia. Am J Hematol. 1998;58(4):278-84

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.