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

Mouse Monoclonal Antibody [Clone HuLy-m2]
Catalog # AH12625

Product Information

Application	IF, FC
Primary Accession	P09564
Other Accession	924, 186820
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a, kappa
Clone Names	HuLy-m2
Calculated MW	25409

Additional Information

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

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 (Workshop IV; Code T165). 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

Sandrin et al. In Leukocyte Typing III, McMichael AJ (ed), Oxford University Press, Oxford, 216219 (1987). | Knapp W et al. eds. Leukocyte typing IV, p341, Oxford University Press, Oxford, 1989. | Miwa H, et al biological characteristics of CD7(+) acute leukemia. Leuk Lymphoma. 1996;21:239-44. | Rabinowich H, et al. J. Immunol. 1994 153(8):3504-3513. | 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. | Thurlow PJ, A monoclonal antibody detecting a new human T cell antigen, HuLy-m2. Transplantation 1984, 38(2):143-147. | Saxena A, et al. Biologic and clinical significance of CD7 expression in acute myeloid leukemia. Am J Hematol. 1998;58(4):278-84