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

Mouse Monoclonal Antibody [Clone C7/511]
Catalog # AH12629

Product Information

Application	IF, FC
Primary Accession	P09564
Other Accession	924, 186820
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a
Clone Names	C7/511
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, 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

Miwa H, et al. Biological characteristics of CD7(+) acute leukemia. Leuk. Lymphoma. 1996, 21(3-4):239-244. Rabinowich H, et al. Signaling via CD7 molecules on human NK cells. Induction of tyrosine phosphorylation and beta 1 integrin-mediated adhesion to fibronectin J. Immunol. 1994;153(8):3504-3513. | Saxena A, et al. Biologic and clinical significance of CD7 expression in acute myeloid leukemia. Am J Hematol. 1998, 58(4):278-84