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

Mouse Monoclonal Antibody [Clone T3-3A1]
Catalog # AH12631

Product Information

Application	IF, FC
Primary Accession	P09564
Other Accession	924, 186820
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	T3-3A1
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

Haynes BF, et al. Human lymphocyte antigens: production of a monoclonal antibody that defines functional thymus-derived lymphocyte subsets. Proc. Natl. Acad. Sci. USA 76: 5829-5833, 1979. | Eisenbarth GS, et al. Production of monoclonal antibodies reacting with peripheral blood mononuclear cell surface differentiation antigens. J. Immunol. 124: 1237-1244, 1980. | Haynes BF, et al. Characterization of a monoclonal antibody that defines an immunoregulatory T cell subset for immunoglobulin synthesis in humans. Proc. Natl. Acad. Sci. USA 77: 2914-2918, 1980. | Prieyl JA, LeBien TW. Interleukin 7 independent development of human B cells. Proc. Natl. Acad. Sci. USA 93: 10348-10353, 1996

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