

Product datasheet for **TA320289**

CD7 Mouse Monoclonal Antibody [Clone ID: eBio124-1D1 (124-1D1)]

Product data:

Product Type:	Primary Antibodies
Clone Name:	eBio124-1D1 (124-1D1)
Applications:	FC
Recommended Dilution:	Flow
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Formulation:	Aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Concentration:	lot specific
Purification:	Affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	CD7 molecule
Database Link:	NP_006128 Entrez Gene 924 Human P09564



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Background:

The eBio124-1D1 monoclonal antibody reacts with human CD7, also known as gp40 and Leu9. CD7, a 40 kD receptor, is a member of the immunoglobulin gene superfamily. The N-terminal amino acid sequence (aa1-107) is highly homologous to Ig kappa light chain sequence; while 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 leukemias. 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 flux, 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. A clonogenic subpopulation of human CD34(+) CD38(-) cord blood cells that express CD45RA and HLA-DR and high levels of the CD7 has been reported. These cells possess the capacity for lymphopoiesis. They can generate B-cells, natural killer cells, and dendritic cells but do not possess the capacity to develop into myeloid cells or erythroid cells. The CD7(+) phenotype distinguishes primitive human lymphoid progenitors from pluripotent stem cells. Furthermore, it has been suggested that CD7 co-operates with CD28 during Treg function, as mice deficient in both CD28 and CD7 have reduced total numbers of Tregs and these Tregs have reduced suppressive activity.

Synonyms:

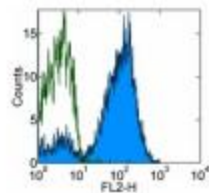
GP40; LEU-9; Tp40; TP41

Protein Families:

Druggable Genome, Transmembrane

Protein Pathways:

Hematopoietic cell lineage

Product images:

Staining of normal human peripheral blood cells with 0.5 ug of Mouse IgG1 K Isotype Control Purified (open histogram) or 0.5 ug of Anti-human CD7 Purified (filled histogram) followed by F(ab')₂ Anti-Mouse IgG PE. Cells in the lymphocyte gate were used for analysis.