

CD7 Monoclonal Antibody (eBio124-1D1 (124-1D1)), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	eBio124-1D1 (124-1D1)
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_823132

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	5 Publications

Product Specific Information

Description: 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.

Applications Reported: This eBio124-1D1 (124-1D1) antibody has been reported for use in flow cytometric analysis.

Applications Tested: This eBio124-1D1 (124-1D1) antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸

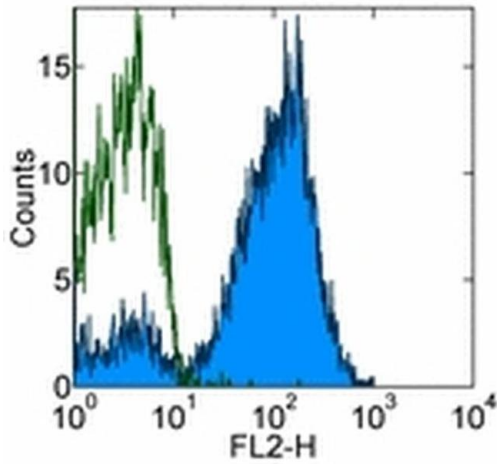
cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD7 Monoclonal Antibody (eBio124-1D1 (124-1D1)), eBioscience™



CD7 Antibody (14-0079-82) in Flow

Staining of normal human peripheral blood cells with 0.5 µg of Mouse IgG1 K Isotype Control Purified (Product # 14-4714-82) (open histogram) or 0.5 µg of Anti-human CD7 Purified (filled histogram) followed by F(ab')₂ Anti-Mouse IgG PE (Product # 12-4010-82). Cells in the lymphocyte gate were used for analysis.

5 References

Flow Cytometry (5)

Stem cell reports

iPSC-Based Modeling of RAG2 Severe Combined Immunodeficiency Reveals Multiple T Cell Developmental Arrests.

"Published figure using CD7 monoclonal antibody (Product # 14-0079-82) in Flow Cytometry"

Authors: Themeli M, Chhatta A, Boersma H, Prins HJ, Cordes M, de Wilt E, Farahani AS, Vandekerckhove B, van der Burg M, Hoebe RC, Staal FJT, Mikkers HMM

Species
Not Applicable

Dilution
Not Cited

Year
2020

Stem cell reports

Targeted Disruption of TCF12 Reveals HEB as Essential in Human Mesodermal Specification and Hematopoiesis.

"Published figure using CD7 monoclonal antibody (Product # 14-0079-82) in Flow Cytometry"

Authors: Li Y, Brauer PM, Singh J, Xhiku S, Yoganathan K, Zúñiga-Pflücker JC, Anderson MK

Species
Not Applicable

Dilution
Not Cited

Year
2017

[View more Flow references on thermofisher.com](#)

More applications with references on thermofisher.com

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