

Mouse anti-Human CD7 Antibody | anti-CD7 antibody

Anti-Hu CD7 PE-Cy7

CATALOG # AAA129342	HOST Mouse	REACTIVITY Human	APPLICATIONS Flow Cytometry, Functional Assay
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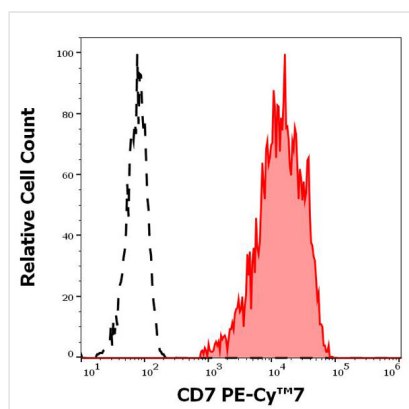
PRODUCT SYNONYMS

CD7; Anti-Hu CD7 PE-Cy7; CD7 molecule; GP40; TLA; TP41; LEU-9; anti-CD7 antibody

PRODUCT SPECIFICATIONS

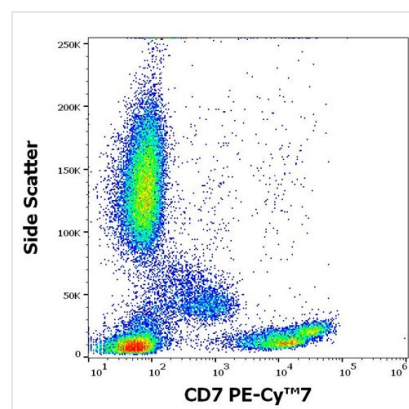
Host	Mouse
Reactivity	Human
Isotype	Mouse IgG1
Clone Number	124-1D1
Specificity	The mouse monoclonal antibody 124-1D1 recognizes an extracellular epitope of CD7, a 40 kD type I transmembrane glycoprotein expressed on peripheral blood T lymphocytes, NK-cells, hematopoietic progenitors, monocytes (weakly) and also on acute lymphocytic leukemia.
Purity/Purification	Purified antibody is conjugated with activated tandem dye of R-phycoerythrin-cyanine 7 (PE-Cy7) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.
Form/Format	Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Applicable Applications for anti-CD7 antibody	FCM/FACS (Flow Cytometry)
Immunogen	not available
Conjugation	PE-Cy7
Preparation and Storage	Store at 2-8 degree C. Protect from prolonged exposure to light. Do not freeze.

IMAGES



FCM/FACS (Flow Cytometry)

Separation of human CD7 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD3 (UCHT1) Alexa Fluor® 647 antibody (4ul reagent/100ul of peripheral whole blood).



FCM/FACS (Flow Cytometry)

Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD7 (124-1D1) Alexa Fluor® 647 antibody (4ul reagent/100ul of peripheral whole blood).

ADDITIONAL INFORMATION

Related Product Information for anti-CD7 antibody	CD7, also known as gp40, is a member of the immunoglobulin superfamily found on T cells, NK cells, thymocytes, hematopoietic progenitors, and monocytes (weakly). CD7 is also expressed on acute lymphocytic leukemia (ALL). CD7 crosslinking induces a calcium flux in T lymphocytes, presumably as a result of cytoplasmic domain association with PI3-kinase. CD7 co-stimulation can induce cytokine secretion and modulate cellular adhesion. A ligand of CD7, epithelial cell secreted protein K12, is produced in thymus to regulate thymocyte signaling and cytokine release. In lung microvascular endothelial cells CD7 serves as an IgM Fc receptor. Expression of CD7 is an important marker used in leukemia tests.
References	*Nishimura M, Takanashi M, Okazaki H, Satake M, Nakajima K: Role of CD7 expressed in lung microvascular endothelial cells as Fc receptor for immunoglobulin M. Endothelium. 2006 Jul-Aug;13(4):287-92., URL: https://pubmed.ncbi.nlm.nih.gov/16990185/,*Chang H, Yeung J, Brandwein J, Yi QL: CD7 expression predicts poor disease free survival and post-remission survival in patients with acute myeloid leukemia and normal karyotype. Leuk Res. 2007 Feb;31(2):157-62. Epub 2006 Jul 11., URL: https://pubmed.ncbi.nlm.nih.gov/16837044/,*Lam GK, Liao HX, Xue Y, Alam SM, Searce RM, Kaufman RE, Sempowski GD, Haynes BF. Expression of the CD7 ligand K-12 in human thymic epithelial cells: regulation by IFN-gamma. J Clin Immunol. 2005 Jan;25(1):41-9., URL: https://pubmed.ncbi.nlm.nih.gov/15742156/,*Alaibac M, Pigozzi B, Belloni-Fortina A, Michelotto A, Saponeri A, Peserico A. CD7 expression in reactive and malignant human skin T-lymphocytes. Anticancer Res. 2003 May-Jun;23(3B):2707-10., URL: https://pubmed.ncbi.nlm.nih.gov/12894562/, *Pelegrí C, Castell M, Serra M, Rabanal M, Rodríguez-Palmero M, Castellote C, Franch A: Prevention of adjuvant arthritis by the W3/25 anti-CD4 monoclonal antibody is associated with a decrease of blood CD4(+)CD45RC(high) T cells. Clin Exp Immunol. 2001 Sep;125(3):470-7., URL: https://pubmed.ncbi.nlm.nih.gov/11531956/,*Vicario M, Amat C, Rivero M, Moretó M, Pelegrí C: Dietary glutamine affects mucosal functions in rats with mild DSS-induced colitis. J Nutr. 2007 Aug;137(8):1931-7. , URL: http://www.ncbi.nlm.nih.gov/pubmed/17634266 ,*Preston SG, Majtán J, Kouremenou C, Rysnik O, Burger LF, Cabezas Cruz A, Chiong Guzman M, Nunn MA, Paesen GC, Nuttall PA, Austyn JM: Novel immunomodulators from hard ticks selectively reprogramme human dendritic cell responses. PLoS Pathog. 2013;9(6):e1003450., URL: https://pubmed.ncbi.nlm.nih.gov/23825947/,*van Dongen JJ, Lhermitte L, Bottcher S, Almeida J, van der Velden VH, Flores-Montero J, Rawstron A, Asnafi V, Lécrovisse Q, Lucio P, Mejstrikova E, Szczepański T, Kalina T, de Tute R, Brüggemann M, Sedek L, Cullen M, Langerak AW, Mendonça A, Macintyre E, Martin-Ayuso M, Hrusak O, Vidrales MB, Orfao A; EuroFlow Consortium (EU-FP6, LSHB-CT-2006-018708): EuroFlow antibody panels for standardized n-dimensional flow cytometric immunophenotyping of normal, reactive and malignant leukocytes. Leukemia. 2012 Sep;26(9):1908-75. doi: 10.1038/leu.2012.120., URL: http://www.ncbi.nlm.nih.gov/pubmed/22552007 ,

NCBI AND UNIPROT INFORMATION

NCBI GI #	5453613
NCBI GeneID	924
NCBI Accession #	NP_006128.1
NCBI GenBank Nucleotide #	NM_006137.6
UniProt Accession #	P09564
Molecular Weight	25,409 Da
NCBI Official Full Name	T-cell antigen CD7
NCBI Official Synonym Full Names	CD7 molecule
NCBI Official Symbol	CD7
NCBI Official Synonym Symbols	GP40; TP41; Tp40; LEU-9
NCBI Protein Information	T-cell antigen CD7; CD7 antigen (p41); T-cell leukemia antigen; T-cell surface antigen Leu-9; p41 protein
UniProt Protein Name	T-cell antigen CD7
UniProt Gene Name	CD7
UniProt Entry Name	CD7_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/mouse-human-antibody/cd7/129342>