Datasheet for ABIN1043027

anti-CD5 antibody

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Overview

Quantity:	0.1 mg
Target:	CD5
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD5 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunocytochemistry (ICC)

Product Details

Immunogen:	Human acute lymphoblastic leukemia (ALL) T cells
Clone:	L17F12
Isotype:	IgG2a kappa
Specificity:	The mouse monoclonal antibody L17F12 reacts with an extracellular epitope of CD5, a 67 kDa single-chain transmembrane glycoprotein expressed on mature T lymphocytes, most of thymocytes and B lymphocytes subset (B-1a lymphocytes).
Cross-Reactivity (Details):	Human
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

Target Details

Target:	CD5
Alternative Name:	CD5 (CD5 Products)
Background:	CD5 Molecule,CD5 antigen (T1, 67 kDa) is a human cell surface T-lymphocyte single-chain transmembrane glycoprotein. CD5 is expressed on all mature T-lymphocytes, most of thymocytes, subset of B-lymphocytes and on many T-cell leukemias and lymphomas. It is a type I membrane glycoprotein whose extracellular region contains three scavenger receptor cysteine-rich (SRCR) domains. The CD5 is a signal transducing molecule whose cytoplasmic tail is devoid of any intrinsic catalytic activity. CD5 modulates signaling through the antigen-specific receptor complex (TCR and BCR). CD5 crosslinking induces extracellular Ca++ mobilization, tyrosine phosphorylation of intracellular proteins and DAG production. Preliminary evidence shows protein associations with ZAP-70, p56lck, p59fyn, PC-PLC, etc. CD5 may serve as a dual receptor, giving either stimulatory or inhibitory signals depending both on the cell type and development stage. In thymocytes and B1a cells it seems to provide inhibitory signals, in peripheral mature T lymhocytes it acts as a costimulatory signal receptor. CD5 is the phenotypic marker of a B cell subpopulation involved in the production of autoreactive antibodies. Disease relevance: CD5 is a phenotypic marker for some B cell lymphoproliferative disorders (B-CLL, Hairy cell leukemia, etc.). The CD5+ popuation is expanded in some autoimmune disorders (rheumatoid arthritis, etc.). Herpes virus infections induce loss of CD5 expression in the expanded CD8+ human T cells.,T1, LEU1
Gene ID:	921
UniProt:	P06127

Application Details

Application Notes:	Flow cytometry: Recommended dilution: 1-4 µg/mL. Western blotting: Laurylmaltoside lysing buffer, non-reducing conditions, recommended dilution: 1-2 µg/mL.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

Product cited in:

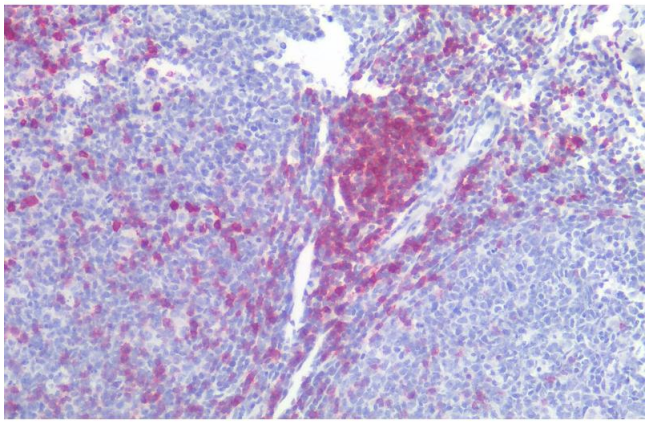
Dunphy, Tang: "The value of CD64 expression in distinguishing acute myeloid leukemia with monocytic differentiation from other subtypes of acute myeloid leukemia: a flow cytometric analysis of 64 cases." in: **Archives of pathology & laboratory medicine**, Vol. 131, Issue 5, pp. 748-54, (2007) (PubMed).

Gong, Lagoo, Peters, Horvatinovich, Benz, Buckley: "Value of CD23 determination by flow cytometry in differentiating mantle cell lymphoma from chronic lymphocytic leukemia/small lymphocytic lymphoma." in: **American journal of clinical pathology**, Vol. 116, Issue 6, pp. 893-7, (2001) (PubMed).

McAlister, Davis, Pfuhl, Driscoll: "NMR analysis of the N-terminal SRCR domain of human CD5: engineering of a glycoprotein for superior characteristics in NMR experiments." in: **Protein engineering**, Vol. 11, Issue 10, pp. 847-53, (1999) (PubMed).

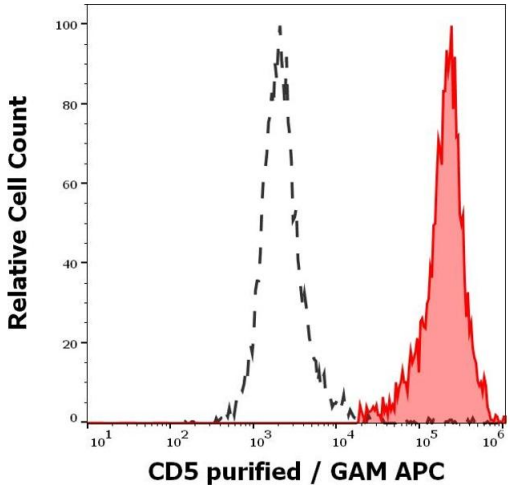
Shuster, Falletta, Pullen, Crist, Humphrey, Dowell, Wharam, Borowitz: "Prognostic factors in childhood T-cell acute lymphoblastic leukemia: a Pediatric Oncology Group study." in: **Blood**, Vol. 75, Issue 1, pp. 166-73, (1990) (PubMed).

Engleman, Warnke, Fox, Dilley, Benike, Levy: "Studies of a human T lymphocyte antigen recognized by a monoclonal antibody." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 78, Issue 3, pp. 1791-5, (1981) (PubMed).



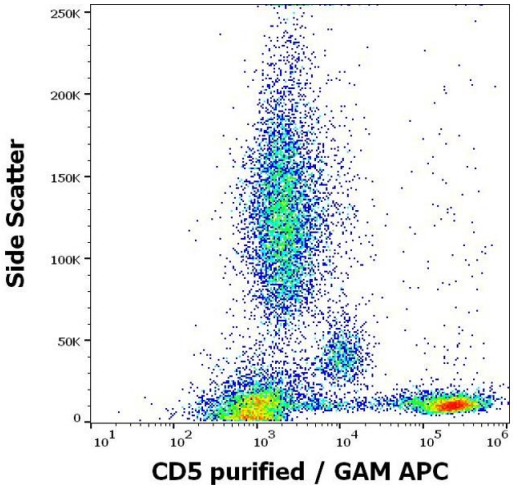
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Immunohistochemistry staining of human tonsil (paraffin-embedded sections) with anti-CD5 (L17F12), 10 µg/mL.



Flow Cytometry

Image 2. Separation of human CD5 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD5 (L17F12) purified antibody (concentration in sample 2 µg/mL, GAM APC).



Flow Cytometry

Image 3. Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD5 (L17F12) purified antibody (concentration in sample 2 µg/mL, GAM APC).

Please check the product details page for more images. Overall 4 images are available for ABIN1043027.