

# Hematologic Cancer Markers



Assessment, Diagnosis, Prognosis  
and Treatment Determination  
of Hematologic Cancers



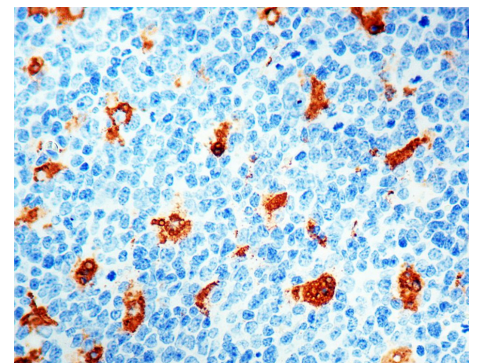
## Novel Antibodies for Hematologic Cancer

Hematologic cancers that affect the blood, bone marrow or lymphatic system represent 5th most commonly occurring cancers and 2nd leading cause of cancer death. In the US, an estimated 137,260 new cases were diagnosed in 2010 that account for about 9.5% of new cancer diagnoses, in which lymphomas are about 54%, leukemias are about 31% and myelomas are about 15%. Leukemia includes chronic and acute myeloid leukemia (CML and AML), chronic and acute lymphocytic leukemia (CLL and ALL), chronic myelogenous leukemia, and hairy cell leukemia.

Lymphoma includes non-Hodgkin's lymphoma (NHL), Hodgkin's lymphoma (HL), cutaneous T-cell Lymphoma (Mycosis Fungoides and Sézary Syndrome). Myeloma includes Chronic Myeloproliferative Disorders, Langerhans Cell Histiocytosis, Myelodysplastic Syndromes, Myelodysplastic/Myeloproliferative Neoplasms.

DBS has a large array of IHC markers for hematological cells. A series of IHC markers can be assembled in order to confirm diagnosis, prognosis and appropriate treatment. Upon initial assessment, the pathologist can order the appropriate hematologic antibodies based upon the cellular morphology and the referring physician's clinical history of the patient. Most regularly used antibodies consist of AE1/AE3, CD30, CD45, CD68, CK8/18, PLAP, S100, Synaptophysin, and Vimentin.

DBS' comprehensive hematologic panel includes novel rabbit monoclonal and mouse monoclonal antibodies. These antibodies ensure sensitivity and specificity of IHC tests. As a result, pathologists and oncologists can have rapid, precise results and an accurate diagnosis to determine an effective treatment for their patients.



*Human tonsil stained with anti-CD68 using DAB*

## DBS Antibodies

Name	Cat. No.	Clone	Clinical Utility
ALK/p80	RMAB 007 RMPD 007	SP8 (R)	Specific marker for anaplastic lymphomas
Bcl-2	RMAB 047 RMPD 047	EP36 (R)	Used for identification of lymphoma, Burkitt's lymphoma, Follicular lymphoma, Acute Myeloid Leukemia Adult
Bcl-6	Mob 468 PDM 176	LN22 (M)	For classification of diffuse large B-cell lymphomas, follicular lymphomas and Burkitt's lymphoma/leukemia
BOB.1	Mob 445	Wue-AC5 (M)	Used as an aid in the identification of B-cells in germinal centers, mantle cells, and differentiation of lymphomas
CD10	RMPD 037	EP195 (M)	Used for identification of Burkitt's lymphoma/leukemia, follicular lymphoma (except grade III), precursor B-cell lymphoblastic leukemia/lymphoma and renal cell carcinoma of the clear cell type
CD15	Mob 365 PDM 127	MMA (M)	Used for identification of Chronic Myelogenous Leukemia, mononuclear Hodgkin's cells and Reed-Sternberg cells in Hodgkin's lymphoma
CD1a	Mob 363 PDM 173	O10 (M)	Used for identification of Langerhans Cell Histiocytosis, thymoma, precursor T-lymphoblastic leukemia/lymphoma
CD20	RMAB 032 RMPD 032	BV11 (R)	Used for identification of B lymphocyte
CD21	Mob 028 PDM 122	1F8 (M)	Used for identification of follicular lymphoma, follicular dendritic cells, mature B cells and angioimmunoblastic T-cell lymphoma
CD23	RMAB 013 RMPD 013	SP23 (R)	Used for identification of both normal B cells and malignant lymphomas such as B-cell chronic lymphocytic leukemia/small lymphocytic lymphoma
CD25	Mob 254 PDM 144	IL2R.1 (M)	Used to distinguish neoplastic mast cell aggregates from reactive proliferations. It is a minor criterion for the diagnosis of bone marrow involvement in systemic mastocytosis (SM)
CD3	RMAB 048 RMPD 048	EP41 (R)	Used for identification of T- and NK-cell lymphomas and mycosis fungoides
CD30	RMAB 038 RMPD 038	EP154 (R)	Used for identification of Reed-Sternberg cells in Hodgkin's lymphoma and anaplastic large cell lymphoma
CD31	Mob 034 PDM 020	JC/70A (M)	Used for identification of hairy cell leukemia, endothelial cells, hemangiosarcoma, Kaposi's sarcoma and angiosarcomas
CD34	Mob 098 PDM 050	QBEND/10 (M)	Used for identification of vascular and lymphatic vessels and tumors of vascular origin
CD4	Mob 119 PDM 093	1F6 (M)	Used for identification of thymocytes, T lymphocyte, anaplastic large cell lymphoma and mycosis fungoides
CD43	Mob 039 PDM 060	DF-T1 (M)	Used for identification of low-grade B-cell lymphoma, peripheral T-cell lymphoma and myeloid disorders
CD45/LCA	RMAB 054 RMPD 054	EP68 (R)	Used for identifying tumors of lymphoid origin
CD45RO	Mob 043	UCLH-1 (M)	Useful marker for reactive T cells and T-cell neoplasms
CD5	RMAB 011 RMPD 011	SP19 (R)	Used for identification of B-cell chronic lymphocytic leukemia/ small lymphocytic lymphoma, mantle cell lymphoma, and T-cell lymphoma and leukemia
CD56	Mob 261 PDM 110	123C3.D5 (M)	Used for identification of natural killer (NK) cells, NK-like T cells, small cell carcinoma of the lung and carcinoid tumor

R—Rabbit M—Mouse

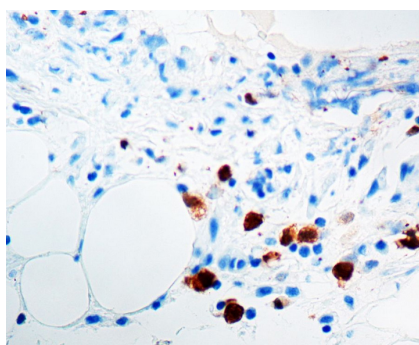
Name	Cat. No.	Clone	Clinical Utility
CD57	Mob 163 PDM 130	NK-1 (M)	Used for identification of lymphocyte-predominant HL, T-cell large granular lymphocyte disorder, oligodendroglioma and neuroendocrine tumor
CD61	Mob 164 PDM 064	Y2/51 (M)	Used for diagnosis of megakaryoblastic leukemia and absence of GpIIb/IIIa in Glanzmann's thrombastenia
CD68	Mob 167 PDM 066	KP1 (M)	Used for identification of macrophages, M4 and M5 types of acute myeloid leukemia (+), and histiocytic sarcoma (+), and M1 acute myeloid leukemia (-)
CD7	Mob 419	CBC.37 (M)	Used for identification of T lymphocyte, Acute Lymphoblastic Leukemia
CD79a	RMAB 014 RMPD 014	SP18 (R)	Used for identification of B lymphocyte and B cells during all stages of differentiation
CD8	RMAB 012 RMPD 012	SP16 (R)	Used for identification of cutaneous T-Cell lymphoma, mycosis fungoides
CD99	RMAB 050 RMPD 050	EP8 (R)	Particular marker in combination with TdT for differentiation of Ewing's sarcoma and lymphoblastic lymphoma
CD138	RMAB 040 RMPD 040	EP201 (R)	Used for identification of differentiated plasma cells, multiple myeloma, and subclassification of diffuse large B-cell lymphoma
Cyclin D1	RMAB 003 RMPD 003	SP4 (R)	Used for identification of mantle cell lymphoma (+), and B-cell chronic lymphocytic leukemia/small lymphocytic lymphoma (-)
Galectin-3	Mob 405	9C4 (M)	Useful in differentiating between benign and malignant thyroid neoplasms in both histologic sections and fine needle aspiration biopsy material, and identifying anaplastic large cell lymphoma
IgA	RP 020 PDR 017	Poly (R)	Used for identification of plasma cells and related lymphoid cells containing IgA, and for the classification of B-cell neoplasias
IgD	RP 021	Poly (R)	Used for identification of mantle cell lymphoma, splenic marginal zone lymphoma, B-cell chronic lymphocytic/leukemia/small lymphocytic lymphoma and rare subsets of multiple myeloma
IgG	RP 023 PDR 018	Poly (R)	Used for identification of plasma cells, lymphoid cells and IgG plasma cell neoplasia containing IgG
IgM	Mob 074 PDM 053	R1/69 (M)	Used for identification of plasma cells and lymphoid cells containing IgM, classification of IgM subtype for B-cell neoplasia
Kappa Light Chain	RMAB 042 RMPD 042	EP171 (R)	Used for identification of plasma cells and lymphoid cells containing kappa light chains, and classification of kappa light chain restriction for monoclonal gammopathies and amyloidosis
Ki67	RMAB 004 RMPD 004	SP6 (R)	Used for identification of Burkitt's lymphoma/leukemia
Lambda Light Chain	RMAB 043 RMPD 043	EP172 (R)	Used for identification of plasma cells and lymphoid cells containing lambda light chains, and for classification of lambda light chain restriction for monoclonal gammopathies and amyloidosis
Lysozyme	RP 028 PDR 005	Poly (R)	Used for identification of histiocytic neoplasias and myeloid leukemias
Mesothelioma	Mob 349 PDM 134	HBME-1 (M)	Used for identification of epithelial mesotheliomas
MUM1	Mob 420	MUM1p (M)	Useful for subclassification of lymphoid malignancies

R—Rabbit M—Mouse

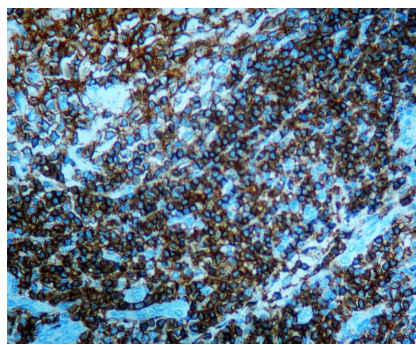
# DBS Antibodies

Name	Cat. No.	Clone	Clinical Utility
PAX5	RMAB 027 RMPD 027	BV6 (R)	Used for identification and classification of Leukemia, Hodgkin's lymphoma
S100	Mob 111 PDM 088	SH-B1 (M)	Used for screening of Langerhans Cell Histiocytosis
TdT	Mob 097 PDM 096	SEN28 (M)	Used for identification of precursor acute lymphoblastic leukemia and thymoma
Top IIa	Mob 243	SWT3D1 (M)	Used for identification of proliferating cells in Hodgkin's Lymphoma
ZAP-70	Mob 431 PDM 149	2F3.2 (M)	Useful for identification of ZAP-70 in a subset of B-cell chronic lymphocytic leukemias/small lymphocytic lymphoma

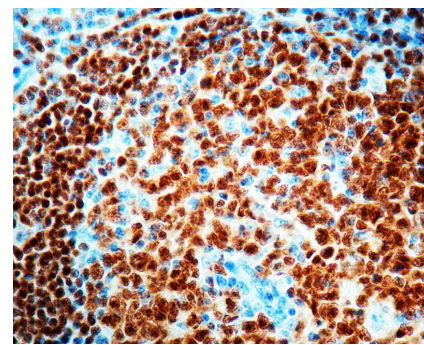
R—Rabbit M—Mouse



Human anaplastic lymphoma stained with anti-anti-ALK/p80 using DAB



Human tonsil stained with anti-CD45 using DAB



Human tonsil stained with anti-Pax-5 using DAB

## PolyVue Plus™ HRP Mouse/Rabbit HRP/DAB Kit:

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