

# Mature B- and T-cell Lymphomas and Leukemias

Lymphomas and leukemias are derived from hematopoietic and hematology lymphoid system cellular elements distributed throughout the body. Many different classifications of hematopoietic and hematology lymphoid neoplasms have evolved over the years, resulting in the utilization of various techniques including immunohistochemistry, flow cytometry, and molecular/genetic studies. These tables are based on the most recent WHO classification (2008). This collection of tables represents an effort to tabulate useful information regarding the general reactivities of the specified antibodies in the respective mature B- and T-cell lymphomas and leukemias as listed. It must be kept in mind that these tables are in no way a substitute for knowledge of the literature with respect to a particular clone or polyclonal product; these tables represent results of a collation of the literature available to us at the time of preparation. Individual results within laboratories may vary somewhat as techniques and protocols are pertinent variables. It is the hope of Cell Marque that pathologists and laboratorians, in general, will find these useful in daily pathology practice when it comes to making differential diagnosis for patients in this somewhat complicated and evolving area of study.

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Mature B-Cell Lymphomas																									
	CD45	CD20	CD79a	CD10	CD5	CD23	CD43	CD30	BCL2	BCL6	Cyclin D1	PAX-5	BOB.1	Oct-2	MUM1	CD25	TRAcP	Annexin A1	TCL1	T-bet	IgD	c-Myc	Ki-67	SOX-11	EBV
Chronic Lymphocytic Leukemia/ Small Lymphocytic Lymphoma	+	+	+	-	+	+	+	-	+	-	-	+	+	+	+	-	-	-	+	+	+, dim	-	Low	-	
Follicular Lymphoma	+	+	+	+	-	-	-	-	+	+	-	+			-/+				+	-	+	-	Low	-	
Mantle Cell Lymphoma	+	+	+	-	+	-	+	-	+	-	+	+			+				+	-	+	-		+	
Splenic Marginal Zone Lymphoma	+	+	+	-	-	-	-	-	+	-	-	+			-	-	-	-	-	+	-/+	-	Low	-	
Nodal Marginal Zone Lymphoma	+	+	+	-	-	-	+	-	+	-	-	+			-	-	-	-	-	+	-/+	-	Low	-	
Extranodal Marginal Zone Lymphoma/Mucosal Associated Lymphoid Tissue	+	+	+	-	-	-	+/-	-	+	-	-	+			-	-	-	-	-	+		-	Low	-	
Lymphoplasmacytic Lymphoma	+	+	+	-	-	-	-	-			-	+								-	-	-	Low	-	
Diffuse Large B-cell Lymphoma	+	+	+	+	+	-	-	-	+	+	-	+			+				+	-	-	+/-	High	-	
Primary Mediastinal Large B-cell Lymphoma	+	+	+	+	-	+	-	+	+	+	-	+	+	+	+				-	-	No sig	-		-	
T-cell and Histocyte Rich Large B-cell Lymphoma	+	+	+	-	-	-	-	-	-/+	+	-	+									-	-/+	High	-	
Intravascular Large B-cell Lymphoma	+	+	+	+	+	-	-	-			-	+			+ if CD10-							+/-	High	-	
ALK+ Large B-cell Lymphoma	-/+	-	-	-	-	-	-/+	-			-				+							-/+		-	ALK-1+
EBV+ Large B-cell Lymphoma	+	+	+	-	-	-	-	-/+	-	-	-				+							+/-	-	+	
Plasmablastic Lymphoma	-/+	-/+	+	-	-	-	-	+			-	-/+			+						clg IgG	+/-	High	-	EBER+
Hairy Cell Leukemia	+	+	+	-	-	-	-	-			+ weak	+				+	+	+	-	+		-	-	-	
Primary Effusion Lymphoma	+	-	-	CD138+				+	-	-											No s/dg	-/+		-	+, HHV-8+
Burkitt Lymphoma	+	+	+	+	-	-	+	-	-	+	-	+			- or -/+				+	-		+	High	-/+	
B-cell Lymphoma, unclassifiable, with features intermediate between DLBCL and Burkitt Lymphoma	+	+	+	+					- or +	+	-				- or -/+							+	High	-/+	
B-cell Lymphoma, unclassifiable, with features intermediate between DLBCL and classical Hodgkin Lymphoma	+	+	+	-		-/+		+		+	-	+	+	+							No s/dg	-		-	
HHV-8+ DLBCL	+	+/-	-	CD138-																		-/+		-	-, HHV-8+

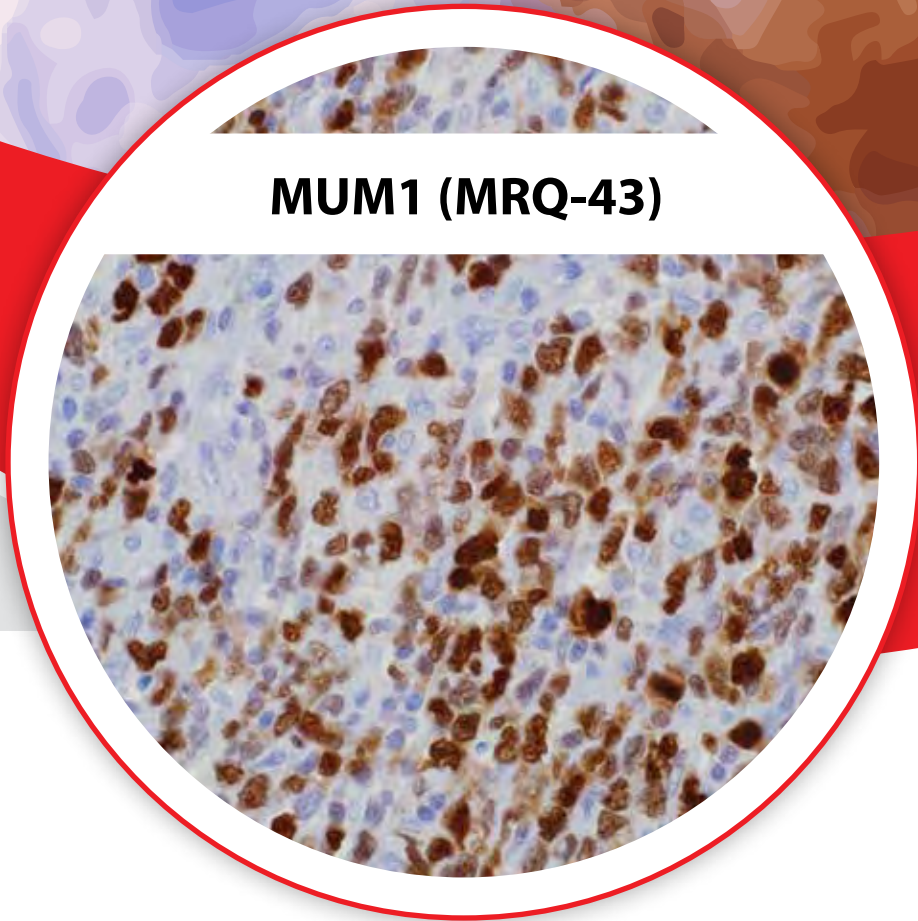
Mature T-Cell Lymphomas																						
	CD2	CD3	CD4	CD5	CD7	CD8	CD25	CD30	CD56	CD57	CD10	BCL6	EMA	Granzyme B	TIA-1	Perforin	EBV					
T-cell Prolymphocytic Leukemia	+	+	+	+	+	+/-	-	-	-	-	-	-	-	-	-	-	-					
T-cell Large Granular Lymphocytic Leukemia	+	+	-	-/+	-/+	+	-	-	-	+	-	-	-	+	+	+	-					
Adult T-cell Leukemia/Lymphoma	+	+	+	+	-	-	+	-/+	-	-	-	-	-	-	-	-	-					
Peripheral T-cell Lymphoma, not otherwise specified	+	+	+/-	-/+	-/+	-/+	-	-/+	-	-	-	-	-	-	-	-	-					
Angioimmunoblastic T-cell Lymphoma	+	+	+	+	+	-	-	-	-	-	+/-	+/-	-	-	-	-	-					
Anaplastic Large Cell Lymphoma, ALK+	+/-	-/+	+/-	+/-	-/+	-/+	+	+	+/-	-	-	+	+	+	+	+	-					
Anaplastic Large Cell Lymphoma, ALK-	+/-	+/-	+/-	+/-	-/+	-/+	+	+	+/-	-	-	-	+	+/-	+/-	+/-	-					
Hepatosplenic T-cell Lymphoma	+	+	-	-	+	+/-	-	-	+	-	-	-	-	+	+	+	-					
Subcutaneous Panniculitis-like T-cell Lymphoma	+	+	-	-/+	+	+	-	-	+	-	-	-	-	+	+	+	-					
Enteropathy-associated T-cell Lymphoma	+	+	-	-	+	-/+	-/+	-/+	-/+	-	-	-	-/+	+	+	+	-					
Extranodal NK/T-cell Lymphoma, Nasal Type	+	+, cyto	-	-	-	-/+	-	-	+	-	-	-	-	+	+	+	+					
AggNKL	+	+, cyto	-	-	-	-/+	-	-	+	-	-	-	-	+	+	+	+					
PCy8TCL	+	+	-	-/+	-/+	-/+	-	-	+	-	-	-	-	+	+	+	-					
PCCD30+TLPD	+	+	+	+/-	-	-	+	+	-	-	-	-	+/-	+	+	+	-					
MF/SS	+	+	+	+/-	-/+	-/+	-	-	-	-	-	-	-	-	-	-	-					

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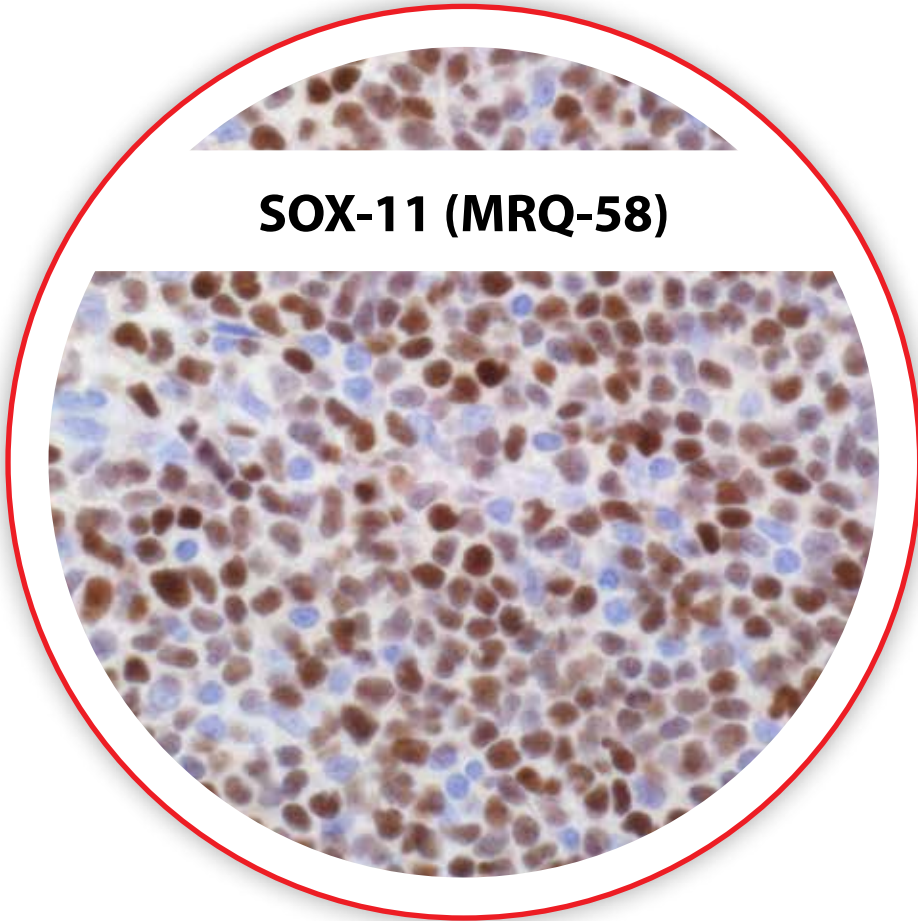
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Hodgkin Lymphomas and Differential Diagnosis																						
	CD30	CD15	CD45	CD20	CD79a	PAX-5	Oct-2	BOB.1	CD3	CD2	CD43	Granzyme B	Perforin	TIA-1	EMA	ALK	LMP	EBER	IMP3			
Classical Hodgkin Lymphoma	+	+/-	-	-/+	-/+	+	-/+	-	-	-	-	-	-	-	-	-	+/-	+/-	+			
Nodular Lymphocyte Predominant Hodgkin Lymphoma	-	-	+	+	+	+	+	+	-	-	-	-	-	-	+/-	-	-	-	+			
T-cell Rich Large B-Cell Lymphoma	-	-	+	+	+	+	+	+	-	-	-	-	-	-	+/-	-	-	-	+			
Diffuse Large B-cell Lymphoma	-/+	-	+	+	+	+	+	+	-	-	-/+	-	-	-	-/+	-	-/+	-/+	+			
Anaplastic Large Cell Lymphoma, ALK+	+	-	+/-	-	-	-			-/+	-/+	+/-	+	+	+	+	+	-	-	-			
Anaplastic Large Cell Lymphoma, ALK-	+	-	+/-	-	-	-			-/+	+/-	+/-	+	+	+	+	-	-	-	-			

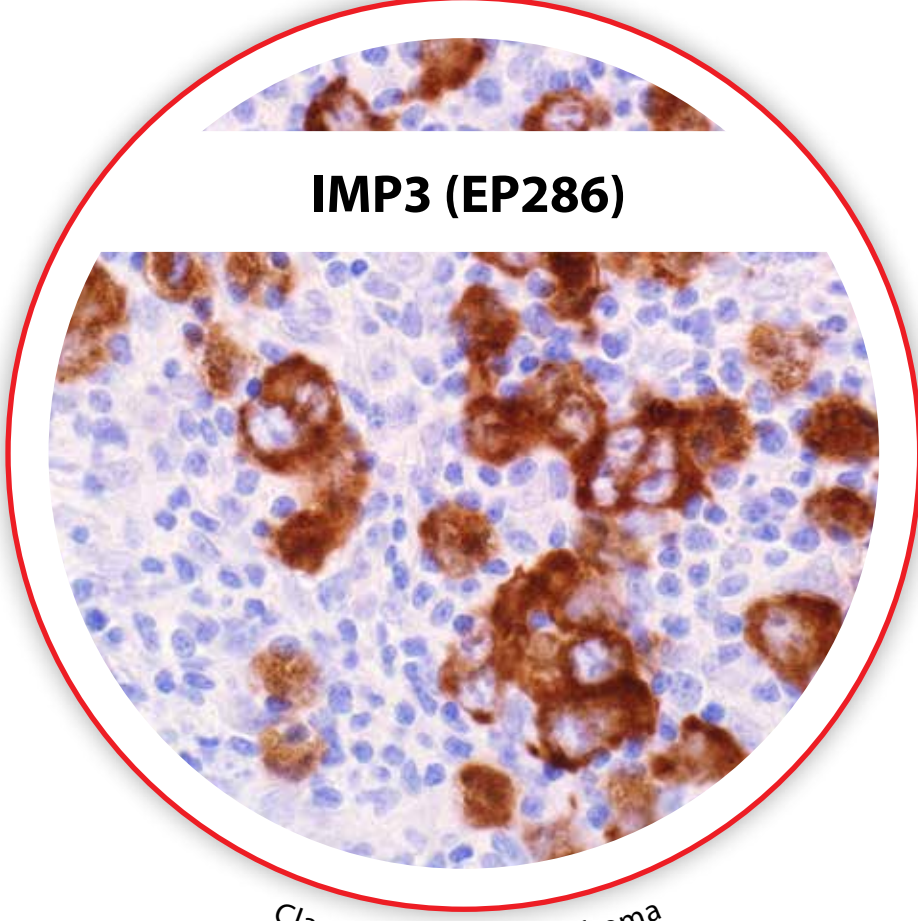
Acute Myeloid Leukemia and Related Neoplasms																						
	TdT	CD34	HLA-DR	CD13	CD33	CD2	CD15	CD19	CD4	CD14	CD41	CD61	CD71	CD68 (KP1)	CD56	CD117	CD163	Glycophorin A	Hgb A	MPO		
AML with t(8;21)	-/+ , weak	+	+	+	+, weak	-	+	+	-	-	-	-	-	-	-/+	-	-	-	-	+		
AML with inv(16) or t(16;16)	-	+	+	+	+	+	+	-	+	+	-	-	-	+	-	+	-	-	-	+		
AML with t(15;17)	-	-/+	-/+	+	+	-	-	-	-	-	-	-	-	-	+	+	-	-	-	+		
AML with t(9;11)	-	-/+	+	+, weak	+	-			+	+, weak	-	-	-	+	+, weak	+, weak		-	-			
AML with t(6;9)	+	+	+	+	+	-	+	-	-	-	-	-	-			+		-	-	+		
AML with inv(3) or t(3;3)	-	+	+	+	+	CD7 +/-					+, subset	+, subset										
AML with t(1;22)	-	-	-	-/+	-/+	-	-	-	-	-	+	+	-	-	-			-	-	-		
AML with mutated NPM1	-	-	+	+	+	-					+	-	-	+	-			-	-	+		
AML with mutated CEBPA	-	+	+	+	+	CD7+	+			+	-	-	-					-	-			
AML with dysplasia-related changes	-/+	-/+		+	+	CD7, -/+									-/+							
AML with minimal differentiation	+	+	+	+	+	CD7+	-	-	-	-	-	-	-	-	-	+	-	-	-	-		
AML without maturation	-	+	+	+	+	+	-	+	+	-	-	-	-	CD7+	+	+		-	-	+		
AML with maturation	-	+	+	+	+	+	+	+	+	-	-	-	-	CD7+	+	+		-	-	+		
Acute Myelomonocytic Leukemia	-	+	+	+	+	CD7+	+		+	+	-	-	-	+	-	+	+	-	-	+		
Acute Monoblastic and Monocytic Leukemia	-	+	+	+	+	CD7+	+	-	+	+	-	-	-	+	+	+	+	-	-	-		
Acute Erythroid Leukemia	-	-	-	-	-	-	-	-	-	-	-	-	+/-	-	-	+/-	-	+	+	-		
Acute Megakaryoblastic Leukemia	-	-	-	-/+	-/+	+			-	-	+	+	-	-	CD7+	-	-	-	-	-		
Myeloid Sarcoma	+	+							+	+	+	+		+	+	+	+	+	+	+		



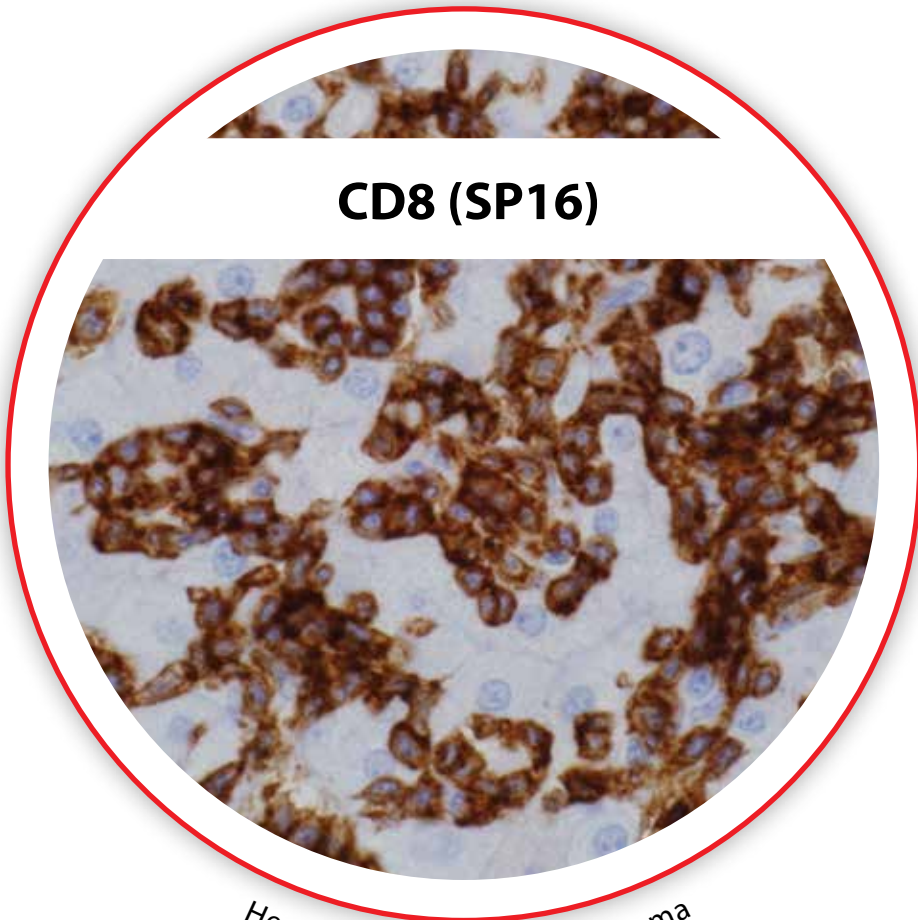
DLBCL



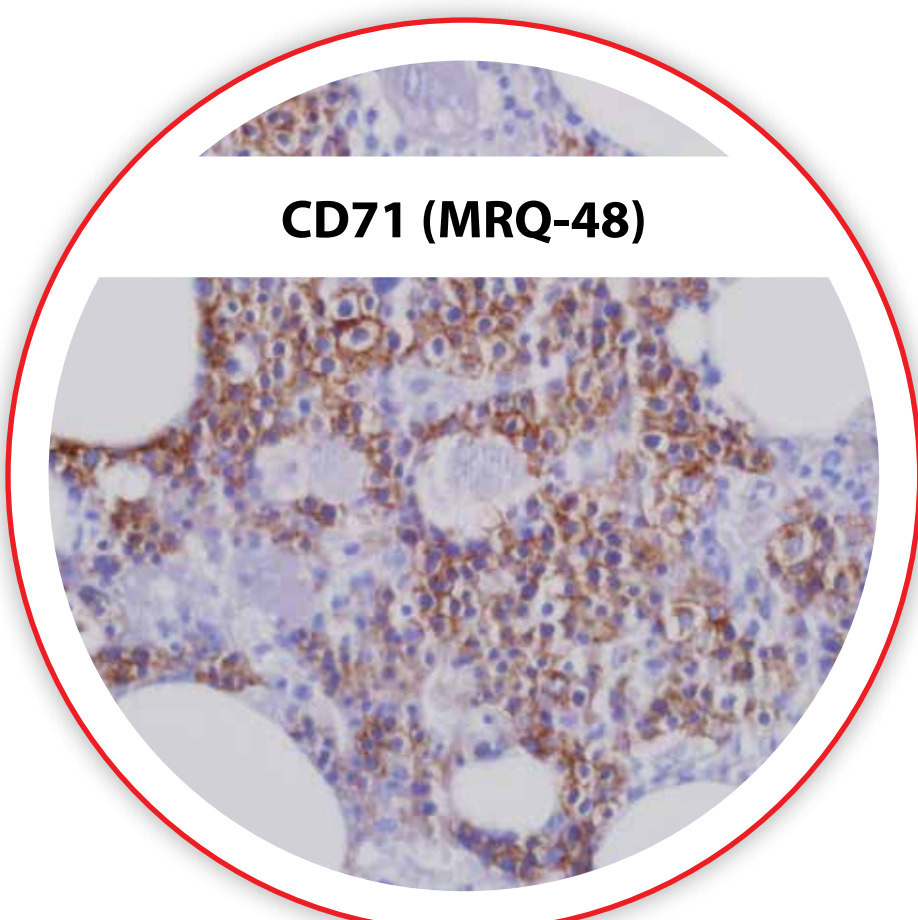
Mantle Cell Lymphoma



Classic Hodgkin Lymphoma



Hepatosplenic T-cell Lymphoma



Erythroid Hyperplasia