

Disease

Gene Rearrangement

Translocation

Mutations

Recommended Primary Test

Recommended Secondary Test

IGH
(V_H-J_H)

IGH
(D_H-J_H)

IGK

IGL

IGHV
SHM

TRB

TRD

TRG

IGH-
BCL1
(CCND1)

IGH-
BCL2

BCR-
ABL1*

PML
RARA*

FLT3

NPM1

Lymphoid/ Lymphoma

Myeloid

Marginal Zone Lymphoma (MZL), extranodal^{12,13,27}

88%

58%

84%

29%

23%

10%

16%

Marginal Zone Lymphoma (MZL), nodal¹³

100%

30%

80%

30%

10%

20%

10%

Mantle Cell Lymphoma (MCL)^{2,6,7,12,13,27,37}

100%

11%

100%

44%

*

9%

4%

11%

75%

Follicular Lymphoma (FL)^{3,7,12,13,27,28}

84%

19%

84%

21%

6%

5%

2%

90%

Diffuse Large B-cell Lymphoma (DLBCL)^{3,12,13,27}

80%

30%

80%

28%

21%

14%

15%

30%

Multiple Myeloma (MM) and other Plasma Cell Neoplasms (PCN)^{2,9,10,20,25}

84%

60%

57%

97%

20%

Chronic Lymphocytic Leukemia (CLL)^{11,12,13,15,23,27,35}

100%

43%

100%

30%

*

25%

12%

18%

B-cell Acute Lymphoblastic Leukemia (B-ALL)^{4,12,14,19,21,22,27,29,30,31,32,33,34}

96%

57%

95%

20%

81%

86%

75%

30%

Suspect B-cell Proliferations^{12,26,27,33}

93%

93%

90%

40%

20%

20%

Peripheral T-cell Lymphoma (PTCL)^{12,13,14,24}

35%

4%

2%

98%

94%

T-cell Acute Lymphoblastic Leukemia (T-ALL)^{12,14,21,22,29,31}

24%

25%

4%

92%

68%

95%

Angioimmunoblastic T-cell Lymphoma (AITL)^{12,13,14}

19%

11%

30%

5%

99%

35%

92%

Adult T-cell Leukemia/Lymphoma³⁹

97%

96%

Anaplastic Large-Cell Lymphoma (ALCL)^{12,13,14}

74%

12%

74%

T-cell Prolymphocytic Leukemia (T-PLL)^{12,13,14}

3%

3%

3%

3%

100%

6%

94%

T-cell Large Granular Lymphocytic Leukemia (T-LGL Leukemia)^{12,13,14}

4%

4%

97%

29%

96%

Suspect T-Cell Proliferations^{12,26,40}

10%

10%

90%

11%

90%

Acute Myeloid Leukemia (AML)^{8,16}

33%

64%

Acute Promyelocytic Leukemia (APL)^{1,5,16,17}

90%

Chronic Myeloid Leukemia (CML)^{7,18,19,21,38}

PCR-based Ig/TCR Profiles with Combined Target Prevalence²⁶

	n =	IGH (V _H -J _H)	IGK	IGH + IGK	TCRB	TCRG	TCRB + TCRG
MCL	54	100%	100%	100%	9%	11%	NE
CLL/SLL	56	100%	100%	100%	25%	18%	NE
FL	109	86%	84%	100%	6%	2%	NE
MZL*	41	95%	83%	100%	24%	15%	NE
DLBCL	109	85%	80%	98%	21%	15%	NE
T-PLL	33	9%	3%	NE	100%	94%	100%
T-LGL	28	0%	4%	NE	96%	96%	100%
PTCL-NOS	47	9%	2%	NE	98%	94%	100%
AIT	37	30%	19%	NE	89%	92%	95%
ALCL‡	43	2%	0%	NE	74%‡	74%‡	79%‡

*MZL comprises both extranodal (31) and nodal (10) cases.

‡The lower percentages in ALCL are partly caused by a series of nine null-type ALCL without any TCR gene rearrangements.

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