

Patient ID SA00175532	Patient Name TESTING, TALFP_ABNORMAL	Birth Date 2002-02-02	Sex F	Age 23
Order Number SA00175532	Client Order Number SA00175532	Ordering Physician CLIENT,CLIENT	Report Notes	
Account Information C7028846 DLMP Rochester		Collected 06 May 2025 00:00		

Pediatric T-ALL/LBL panel, FISH

Result Summary

Abnormal

Interpretation

The result is abnormal and indicates 50% of nuclei had TLX3::BCL11B fusion. Chromosome studies were normal (reported separately) but did not identify the 5;14 translocation resulting in TLX3::BCL11B fusion since this translocation is "cryptic". While TLX3::BCL11B fusion has been associated with an unfavorable prognosis in T-lymphoblastic leukemia/lymphoma (T-ALL) (Roberts et al., Nat Rev Clin Oncol 12:344–357, 2015; van Grotel et al., Haematologica 91:1212–1221, 2006), recent evidence suggests the prognosis may be more favorable (Duffield, et al. Virchows Arch, 482:11–26, 2023).

Clinical and pathologic correlation is recommended.

For monitoring response to therapy, FISH for TLX3::BCL11B fusion is available, test TALMF [ALL (T-cell), Specified FISH].

Result Table

Abnormality Name	Result	Abn%	Cutoff%
11q23(KMT2A sep)	Normal		<10.0
t(9;22) BCR::ABL1 fusion	Normal		<4.0
ABL1 amplification	Normal		<15.0
t(5;14) TLX3::BCL11B fusion	Abnormal	50	<4.0
7q34(TRB sep)	Normal		<15.0
14q11.2(TRA sep)	Normal		<15.0
t(10;11) PICALM::MLLT10 fusion	Normal		<4.0
1p33(TAL1/STIL sep)	Normal		<10.0

Result

nuc ish (TLX3,BCL11B)x3(TLX3 con BCL11B)x2[100/200]

Reason for Referral

r/o T-cell ALL

Specimen

Bone Marrow

Source

Left iliac crest

Method

Locus and probes	[Strategy;#Nuclei;Vendor]
1p33(TAL1,STIL)	[BAP;100;LDT]
5q35(TLX3), 14q32(BCL11B)	[DFISH;200;LDT]
7q34(5'TRB,3'TRB)	[BAP;100;LDT]
9q34(ABL1), 22q11.2(BCR)	[DFISH;200;AM]
10p12(MLLT10), 11q14(PICALM)	[DFISH;200;LDT]
11q23(5'KMT2A,3'KMT2A)	[BAP;100;AM]
14q11.2(5'TRA,3'TRA)	[BAP;100;LDT]

Probe strategies include:
DFISH=dual color, double fusion;
BAP=break-apart probe.
Scoring Method: Manual

Probe vendors include:
LDT = Mayo Clinic Developed
AM = Abbott Molecular, Inc (Des Plaines, IL)

Updated Gene Symbols:
KMT2A: previously reported as MLL
TRA: previously reported as TRAD

Performing Site Legend

Code	Laboratory	Address	Lab Director	CLIA Certificate
MCR	Mayo Clinic Laboratories - Rochester Main Campus	200 First Street SW, Rochester, MN 55905	Nikola Baumann Ph.D.	24D0404292



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Disclaimer Applicable to Analyte Specific Reagent (ASR) and Laboratory Developed Tests (LDT). This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the U.S. Food and Drug Administration. This FISH test does not rule out other chromosome abnormalities.	MCR	Released By Xinjie Xu, Ph.D.	MCR
		Received: 13 May 2025 10:50	Reported: 21 May 2025 14:14

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