

Patient ID SA00161707	Patient Name SAMPLEREPORT, PM3CX	Birth Date 1984-08-04	Sex F	Age 39
Order Number SA00161707	Client Order Number SA00161707	Ordering Physician CLIENT,CLIENT	Report Notes	
Account Information C7028846 DLMP Rochester		Collected 08 Aug 2023 12:34		

Lymph3Cx, Lg Bcell Lymphoma,mRNA,Ts

Lymph3Cx, Large B-cell Lymphoma, mRNA, Tissue

AZMD

Primary Mediastinal B-cell Lymphoma

Pathology Accession and Block Used for PM3CX: NA-12-234 A1

Specimen Source: Right anterior mediastinal mass, excision

PMBCL Probability

AZMD

1.00

PMBCL Call

1 AZMD

Primary Mediastinal B-cell Lymphoma

These results are considered preliminary and require complete integration with the current pathology case NA-12-234 A1 for final interpretation.

This test is designed to be used on FFPE samples that have been confirmed by pathologists to be large B-cell lymphoma with at least 60% tumor content. Other samples may produce unexpected or inaccurate results.

Results Based On:

PMBCL Call is based upon PMBCL probability: Greater than or equal to 0.90 is Primary Mediastinal B-Cell Lymphoma (PMBCL). Less than or equal to 0.10 is Diffuse Large B-Cell Lymphoma (DLBCL). All other results are Unclear PMBCL/DLBCL.

If DLBCL is called per above, then Cell of Origin is determined by DLBCL probability: Less than or equal to 0.10 is Germinal Center B-cell (GCB). Greater than or equal to 0.90 Activated B-cell (ABC). All other results are Unclassifiable (UNC).

If the overall call is "Unclear PMBCL/DLBCL" and Cell of Origin results are desired, contact the testing laboratory to request.

Reason for Referral:

Diagnosis of large B-cell lymphoma with differential including DLBCL or PMBCL

Method:

Microscopic inspection is performed by a pathologist to determine tumor content and area. Tumor tissue is macrodissected and total RNA is extracted from unstained sections. The resulting RNA is quantified by spectrophotometry (NanoDrop(TM) Thermo Scientific), and hybridized overnight to fluorescently-labeled probes on a thermal cycler. Probe/RNA complexes are purified on a NanoString(R) nCounter(R) Prep Station, and then transferred to a NanoString nCounter(R) Digital Analyzer for quantification via single molecule imaging. Samples that have been flagged by the NanoString(R) nSolver(TM) Analysis software as being of poor quality, or otherwise appear as outliers, will be excluded. The counts are then processed on the National Cancer Institute' Lymphoma/Leukemia Molecular Profiling Project (LLMPP) Lymph3Cx patented classifier algorithm, which performs quality control and subtyping. Research suggests that novel therapeutic approaches might have preferential benefit in PMBCL as compared to DLBCL.

Performing Site Legend

Code	Laboratory	Address	Lab Director	CLIA Certificate
AZMD	Mayo Clinic Molecular Diagnostics	13208 E. Shea Blvd, CRB 1-250, Scottsdale, AZ 85259	Lisa Rimsza MD	03D2113087

Patient ID SA00161707	Patient Name SAMPLEREPORT, PM3CX	Birth Date 1984-08-04	Sex F	Age 39
Order Number SA00161707	Client Order Number SA00161707	Ordering Physician CLIENT,CLIENT	Report Notes	
Account Information C7028846 DLMP Rochester		Collected 08 Aug 2023 12:34		

Current data suggests that the ABC subtype of DLBCL has a poorer prognosis compared to the GCB subtype; and that certain therapies may be more effective in ABC subtype of DLBCL in the front line and relapsed settings.

References:

1. Determining cell-of-origin subtypes of diffuse large B-cell lymphoma using gene expression in formalin-fixed paraffin-embedded tissue. Scott DW, et al, Blood. 2014 Feb 20;123(8):1214–7.
2. Molecular classification of primary mediastinal large B-cell lymphoma using routinely available tissue specimens. Mottok A, et al, Blood. 2018 Sep 26; 132(22):2401–2405.
3. Molecular classification and treatment of diffuse large B-cell lymphoma and primary mediastinal B-cell lymphoma. Roschewski M. et. al, Cancer J. 2020 May/June;26(3):195–205.
4. PD-1 expression and clinical PD-1 blockade in Bcell lymphomas. Xu-Monette ZY, et al, Blood. 2018 Jan 04;131(1):68–83.
5. Safety and tolerability of pembrolizumab in patients with relapsed/refractory primary mediastinal large B-cell lymphoma. Zinzani PL, et al, Blood 2017 Jul 20;130(3):267–270.
6. Lenalidomide combined with R-CHOP overcomes negative prognostic impact of non-germinal center B-cell phenotype in newly diagnosed diffuse large B-Cell lymphoma: a phase II study. Nowakowski GS, et al. J Clin Oncol. 2015 Jan 20;33(3):251–7.
7. Prognostic molecular biomarkers in diffuse large B-cell lymphoma in the rituximab era and their therapeutic implications. Papageorgiou SG, et al, Ther Adv Hematol. 2021 May 24;12:1–26.
8. Comparison of immunohistochemistry and gene expression profiling subtyping of diffuse large B-cell lymphoma in the phase III clinical trial of R-CHOP ± ibrutinib. Balasubramanian S, et al, Br J Haematol. 2021 May 03;194(1):83–91.

Reporting Performed: Mayo Clinic Molecular Diagnostics--Az Laboratory, 13208 E. Shea Blvd., Scottsdale, AZ 85259

Received: 13 Aug 2023 13:13

Reported: 15 Aug 2023 14:31

Laboratory Notes

- 1 This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

Performing Site Legend

Code	Laboratory	Address	Lab Director	CLIA Certificate
AZMD	Mayo Clinic Molecular Diagnostics	13208 E. Shea Blvd, CRB 1-250, Scottsdale, AZ 85259	Lisa Rimsza MD	03D2113087