MAYO CLINIC LABORATORIES

1-800-533-1710

CSPCF

Plasma Cell Proliferative Disorder, Pre-Analysis Cell Sorting, Bone Marrow

Patient ID	Patient Name		Birth Date	Gender	Age
SA00148945	TESTINGRNV, PCPDS-ABNORMAL		1944-11-02	M	76
Order Number	**Client Order Number**	**Ordering Physician**	**Report Notes**		
SA00148945	SA00148945	CLIENT,CLIENT			
Account Information		**Collected**			
C7028846 DLMP Rochester		13 Oct 2021 15:33			

PCPDS Pre-Analysis Cell Sorting, BM

PCPDS Pre-Analysis Cell Sort

(1) MCR

Performed

ADDITIONAL INFORMATION

Flow cytometric cell selection was performed with antibodies to the following antigens: CD19, CD38, CD45, CD56, CD138, and CD319.

Specimen enrichment for certain cell types is necessary, in order to enhance the sensitivity of genetic/molecular abnormalities detection in the cell population of interest, and to avoid unwanted contamination from other cell types. Flow cytometric cell sorting is the most direct and robust method of obtaining a pure population for subsequent genetic/molecular analysis, through assessment of a characteristic combination of cell surface antigens.

Received: 15 Oct 2021 07:20 **Reported:** 10 Nov 2021 15:52

Performing Site Legend

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

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Plasma Cell Prolif, High Risk, FISH

Result Summary

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Abnormal

Interpretation

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The result is abnormal and indicates a plasma cell clone with a TP53 deletion. In plasma cell dyscrasias, this finding represents a high risk cytogenetic abnormality (Kumar S., et al., Nat Rev Clin Onc 15:409–421, 2018; Rajkumar, et al., Blood 125:3069–3075, 2015; Lakshman, et al., Leukemia 32:1811–1815, 2018; Wong, et al., Clinical Lymphoma, Myeloma and Leukemia 18:e493–499, 2018). TP53 mutation testing could be performed to evaluate for high risk, double hit plasma cell myeloma (Walker, et al., Leukemia. 33:159–170, 2019).

The overall risk assessment should be done in the context of other risk factors.

If not previously performed at diagnosis, the Mayo Stratification for Myeloma and Risk Adapted Therapy algorithm (mSMART 3.0, www.msmart.org/mm-treatment-guidelines) incorporating both FISH and monotypic plasma cell S-phase results can be performed on a new sample. If interested in this testing, call 800–533–1710.

Result Table

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Abnormality Name	Result	#Abn	TotalCells
-17p13.1(TP53x1,D17Z1x2)	Abnormal	41	50
-17(TP53,D17Z1)x1	Normal	0	50
+1q22(TP73x2,1q22x3)	Normal	0	50
14q32(IGH sep)	Normal	0	50

Result

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nuc ish(TP53x1,D17Z1x2)

Reason for Referral

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multiple myeloma

Specimen

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Bone Marrow

Source

MCR

Left iliac crest

Method

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Locus and probes	[Strategy;#Nuclei;Class]
1p3(TP73), 1q22(1q22)	[COPY#;50;LDT]
14q32(3'IGH,5'IGH)	[BAP;50;LDT]
17p13(TP53), 17CEN(D17Z1)	[COPY#;50;AM]

Probe strategies include:
BAP=break-apart probe;
COPY#=region gain and loss.
Scoring Method: Manual

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

Disclaimer

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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.

Released By

MCR

Jess F. Peterson, M.D.

Received: 15 Oct 2021 07:20 **Reported:** 25 Oct 2021 10:57

Performing Site Legend

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MCR	Mayo Clinic Laboratories - Rochester Main Campus	200 First Street SW, Rochester, MN 55905	William G. Morice M.D. Ph.D	24D0404292

MAYO CLINIC LABORATORIES

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Account Information		**Collected**			
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Laboratory Notes

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