

Patient ID <b>SA00125391</b>	Patient Name <b>TESTINGRNV, SAMPLEREPOR</b>	Birth Date <b>1978-11-15</b>	Gender <b>M</b>	Age <b>41</b>
Order Number <b>SA00125391</b>	Client Order Number <b>SA00125391</b>	Ordering Physician <b>CLIENT,CLIENT</b>	Report Notes	
Account Information <b>C7028846 DLMP Rochester</b>		Collected <b>26 Jan 2020 07:40</b>		

**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: CD45, CD319, CD19, CD56, CD38, and CD138.

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:** 27 Jan 2020 07:49

**Reported:** 28 Jan 2020 10:36

**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

Patient ID <b>SA00125391</b>	Patient Name <b>TESTINGRNV, SAMPLEREPORT</b>	Birth Date <b>1978-11-15</b>	Gender <b>M</b>	Age <b>41</b>
Order Number <b>SA00125391</b>	Client Order Number <b>SA00125391</b>	Ordering Physician <b>CLIENT,CLIENT</b>	Report Notes	
Account Information <b>C7028846 DLMP Rochester</b>		Collected <b>26 Jan 2020 07:40</b>		

## Plasma Cell Prolif, Sort, FISH

### Result Summary

MCR

**Abnormal**

### Interpretation

MCR

The result is abnormal and indicates a plasma cell clone with CCND1/IGH fusion, usually representing a t(11;14). In plasma cell myeloma, smoldering myeloma and monoclonal gammopathy of undetermined significance (MGUS), this clone is defined as standard risk (Kumar S., et al., Nat Rev Clin Onc 15:409–421, 2018; Rajkumar, et al., Blood 125:3069–3075, 2015; Lakshman, Leukemia, 32:1811–1815, 2018). In amyloidosis, the prognostic significance for this clone may be influenced by treatment (Muchtar, et al. Leukemia. 31:1562–1569, 2017).

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

### Result Table

MCR

Abnormality Name	Result	#Abn	TotalCells
14q32(IGH sep)	Abnormal	50	50
t(14;16) IGH/MAF fusion	Normal	0	50
t(4;14) FGFR3/IGH fusion	Normal	0	50
t(11;14) CCND1-XT/IGH-XT fusion	Abnormal	50	50
-17p13.1(TP53x1,D17Z1x2)	Normal	0	50
-17(TP53,D17Z1)x1	Normal	0	50
+1q22(TP73x2,1q22x3)	Normal	0	50
+1(TP73,1q22)x3	Normal	0	50
8q24.1(MYC sep)	Normal	0	50
-13q14(RB1x1,LAMP1x2)	Normal	0	50
-13(RB1,LAMP1)x1	Normal	0	50
+9CEN(D9Z1x3)	Normal	0	50
+15CEN(D15Z4x3)	Normal	0	50
+7CEN(D7Z1x3)	Normal	0	50
+3CEN(D3Z1x3)	Normal	0	50
+11(CCND1-XTx3)	Normal	0	50

### Result

MCR

nuc ish(CCND1-XT,IGH-XT)x3(CCND1-XT con IGH-XTx2)

### Reason for Referral

MCR

multiple myeloma/MM

### Specimen

MCR

Bone Marrow

### Source

MCR

Left posterior iliac crest

### 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

Patient ID <b>SA00125391</b>	Patient Name <b>TESTINGRNV, SAMPLEREPOR</b>	Birth Date <b>1978-11-15</b>	Gender <b>M</b>	Age <b>41</b>
Order Number <b>SA00125391</b>	Client Order Number <b>SA00125391</b>	Ordering Physician <b>CLIENT,CLIENT</b>	Report Notes	
Account Information <b>C7028846 DLMP Rochester</b>		Collected <b>26 Jan 2020 07:40</b>		

**PCPDF Method**
**MCR**

Locus and probes	[Strategy;#Nuclei;Class]
1p36.3(TP73), 1q22	[COPY#;50;LDT]
3CEN(D3Z1), 7CEN(D7Z1)	[COPY#;50;ASR]
4p16.3(FGFR3), 14q32(IGH)	[DFISH;50;ASR]
8q24(5'MYC,3'MYC)	[BAP;50;ASR]
9CEN(D9Z1), 15CEN(D15Z4)	[COPY#;50;ASR]
11q13(CCND1-XT), 14q32(IGH-XT)	[DFISH;50;ASR]
13q14(RB1), 13q34(LAMP1)	[COPY#;50;ASR]
14q32(3'IGH,5'IGH)	[BAP;50;LDT]
14q32(IGH), 16q23(MAF)	[DFISH;50;ASR]
17p13.1(TP53), 17CEN(D17Z1)	[COPY#;50;ASR]

Probe strategies include: DFISH=dual color, double fusion;  
BAP=break-apart probe; COPY#=region gain and loss.

**Disclaimer**
**MCR**

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**

Linda B. Baughn, Ph.D.

**Received:** 27 Jan 2020 07:49

**Reported:** 10 Feb 2020 08:20

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