



<u>Procedure</u>	<u>Result</u>	<u>Units</u>	<u>Ref Interval</u>	<u>Accession</u>	<u>Collected</u>	<u>Received</u>	<u>Reported/</u> <u>Verified</u>
Interpretation	See Note f			19-345-900046	11-Dec-19	11-Dec-19	11-Dec-19
					10:35:00	10:36:00	10:44:12

11-Dec-19 10:35:00 Interpretation:

Bone Marrow, Aspirate:
 POSITIVE for persistent/recurrent plasma cell neoplasm by flow cytometry comprising 0.13% of viable leukocytes (see comment)

Comment
 An abnormal plasma cell population is identified with a phenotype similar to that previously seen (19-xxx-xxxxxx). Note that flow cytometry typically underestimates the plasma cell fraction and correlation with morphology and immunohistochemistry of the core biopsy is recommended to determine the true disease burden. The lower limit of detection for this assay is estimated to be 50/(5000000)

Analysis:
 Number of events collected:4595369
 Plasma cells percentage of viable cells: 0.130%
 Atypical Plasma cells:(70% of total PCs)
 Overall plasma cell kappa:lambda ratio: 6.3
 Abnormal Plasma Cell Phenotype:
 Light Chain: Kappa Lambda
 CD19: Absent
 CD56: High
 CD27: Decreased
 CD81: Increased
 CD117: High
 CD45: Decreased
 CD38: Decreased

Antigens examined: CD19, CD 27, CD38, CD45, CD56, CD81, CD117, CD138, Cytoplasmic Kappa light chain, and Cytoplasmic Lambda light chain

Markers:10

This assay is designed for a lower limit of detection of 0.001% plasma cells per total leukocytes.

These results have been reviewed and approved by David Ng, MD.

11-Dec-19 10:35:00 Interpretation:
 INTERPRETIVE INFORMATION: Multiple Myeloma MRD
 by Flow Cytometry
 The validated limit of detection (of plasma cells) is 0.001 percent for this assay.
 Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement A: aruplab.com/CS

* Abnormal, # = Corrected, C = Critical, f = Footnote, H = High, L = Low, t = Interpretive Text, @ = Reference Lab