



DR. KUNAL SEHGAL

M.D. Pathology (PGI Chandigarh) Gold Medalist Fellow (AUF) Hematopathology & Flowcytometry (The Johns Hopkins Hospital, USA)

Master MOHAMMED SAMI

Age: 4 Yrs Sex:Male

Lab No: 10242348 Permanent ID:

Reference:

Registered On Collected On

05/06/2024 14:34:12

Authenticated On 08/06/2024 12:09:25

05/06/2024 14:35:38

FLW/24-2159

Minimal Residual Disease (MRD) for **AML**

Clinical history K/C/O acute myeloid leukemia

Specimen Bone Marrow

Instrument software BD FACS LYRIC/BD FACS SUITE

Gating strategy 12 color FCM using FSC Vs CD45 SSC gating

Cell preparation method Stain - Lyse - Wash

Number of Events Acquired 1367204

FSC SSC Viable events 1266796

MRD events 109286

MRD +ve % (MRDevents/FSC-SSCevents) 8.6270 %

Descriptive summary:

Flow cytometric immunophenotypic analysis of the bone marrow was done on CD45/side scatter plots. A total of 13.67 lac events were acquired.

Abnormal myeloid blasts are identified and they express dim CD45, bright homogeneous CD33, dim to negative CD13, moderate CD38, moderate to dim CD123 and moderate heterogeneous CD117.

These blasts are negative for CD14, CD64, CD34, CD36, CD16, CD15, CD7, CD19, CD56 and CD11b.

Impression: Flow cytometry analysis shows ~8.62% residual disease in a known case of acute myeloid leukemia.

Note: For the above AML MRD assay, validated sensitivity for detection is upto 0.1% of all viable cells.

A two-tube 12-colour panel is used for the AML MRD assay. CD34, CD38, CD117, HLADR, CD45, CD13 are common gating markers in both tubes. Other markers include CD33, CD36, CD64, CD14, CD16, CD123, CD15, CD11b, CD7, CD19 and CD56. For calculation of limit of detection (LOD) a threshold of 20 events and for limit of quantification (LOQ) a threshold of 50 events are used. MRD results are to be correlated with clinical details, diagnostic immunophenotype and cytogenetic profile of the patient. MRD can be used as an independent prognostic factor for the patient, however its role for therapeutic decisions is to be

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sehgalpathlab@gmail.com

Dr. KUNAL SEHGAL, M.D. Director, Sehgal Path Lab www.sehgalpathlab.com

Suria That

Consultant, Sehgal Path Lab

DR.SUKRITI THAKUR, M.D.

HELPLINE @ 022 3519 3900

Andheri West, Mumbai - 53





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Sex:Male

DR.SUKRITI THAKUR, M.D.
Consultant, Sehgal Path Lab

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Page No: 2 of 2

sehgalpathlab@gmail.com

Dr. KUNAL SEHGAL, M.D. Director, Sehgal Path Lab www.sehgalpathlab.com

JUHU:





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*** End of Report ***

Suria Trap DR.SUKRITI THAKUR, M.D. Consultant, Sehgal Path Lab

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sehgalpathlab@gmail.com

Dr. KUNAL SEHGAL, M.D. Director, Sehgal Path Lab

www.sehgalpathlab.com

JUHU:

Crest Clinic, 802, Casablanca, Cross Road No. 10, Gulmohar Road, Juhu, Mumbai - 49