To: Sehgal Path Lab Private Limited
103,Yashodhan Bldg 2, Four Bungalows,
Andheri West
Andheri West, Mumbai-- 400053
Maharashtra
Report Of: Ms. KUNDATAI BIHARE

Sample ID	:	2400077361
Patient ID	:	1002410521
Collected on	:	23-04-2024
Received on	:	25-04-2024 14:30:00
Reported on	:	03-05-2024 20:04:58
Ref By	:	Sehgal Path Lab Private Limited

MOLECULAR CYTOGENETICS (FISH) REPORT

Patient Name	: **Ms. KUNDATAI BIHARE**	**Age**	: **80 Years**
Physician Name	: **-**	**Gender**	: **Female**
Provisional Diagnosis	: **Monocytosis in BM with marked myeloid prominence**	**Specimen Status**	: **Ok**
Specimen Type	: **Bone Marrow Aspirate (BMA)**	**Disease Status**	: **At Diagnosis**
Test Requested	: **Myelodysplastic Syndromes(MDS) FISH, t(9;22) (*BCR-ABL1*) FISH**		

Test	: **Myelodysplastic Syndromes(MDS) OncoInsights^{TM} FISH panel**
Test panel	: -5/del(5q), -7/del(7q), del(20q), Trisomy 8 , *TP53*(17p) deletion Analysis.
Method	: Direct culture of bone marrow aspirate followed by interphase cells preparation, Fluorescence in situ hybridization on interphase cells.
Probe panel	: Metasystem XL 5q31/5q33/5p15 TC, XL 7q22 / 7q36 TC, XL 20q12 / 20qter dual color, ZytoLight SPEC *TP53*/CEN17 dual colour, CEN 8 probe. Limit of Detection: LSI deletion probe : 5%, Centromeric probe: 2% (trisomy), 5% (monosomy)
No. of Cells Analysed	: 200

Result:
-5/del(5q),-7/del(7q),del(20q) Analysis:

-5/del(5q)	**5q31(*EGR1*) (Orange)**	**5q33(RPS14) (Green)**	**5p15(*hTERT*) (Aqua)**	**No. Cells**
Signal/s/Cells	2	2	2	200
-7/del(7q)	**7q22(CUX1) (Orange)**	**7q36(EZH2) (Green)**	**CEN7 (D7Z1) (Aqua)**	**No. Cells**
Signal/s/Cells	2	2	2	200
del(20q)	**20q12(*PTPRT*) (Orange)**	**20qter (Green)**	**No. of Cells**	
Signal/s/Cells	2	2	200	

Trisomy 8 Analysis:

Chromosome	**Signal/s/Cells**	**No. Cells**
CEN 8(Green)	2	200

***TP53*(17p) deletion Analysis:**

17p deletion	***TP53* (Orange)**	**CEN 17(Green)**	**No. Cells**
Signal/s/Cell	2	2	200

Interpretation: Fluorescence in situ hybridization (FISH) with above mentioned probes showed no evidence of -5/del(5q), -7/del(7q), del(20q), 17p deletion and trisomy 8.

IMPRESSION: Present case revealed no evidence of -5/del(5q), -7/del(7q), del(20q), 17p deletion and trisomy 8.

References:

1. Daniel A. Arber, Attilio Orazi, Robert Hasserjian, Jurgen Thiele, et al. The 2016 revision to the World H ealth Organization classification of myeloid neoplasms and acute leukemia. Blood 127:23912405,201 6;doi:https://doi.org/10.1182/blood-2016-03-64354.
2. Greenberg P et al. Revised prognostic scoring system for Myelodysplastic syndromes. Blood 120, 245 4, 2012.
3. Grant E. Nybakken and Adam Bagg. The Genetic Basis and Expanding Role of Molecular Analysis in th eDiagnosis, Prognosis, and Therapeutic Design for Myelodysplastic Syndromes. The Journal of Molecul ar Diagnostics, Vol. 16, No. 2, March 2014.
4. P. Amare (Kadam), Cytogenetics karyotyping, FISH & M-FISH in MDS. BOOK Hematology Update – Myelodysplastic syndromes EdsDr.MB Agarwal Vol 2April, 42- 46,2011.

Prepared By : **Mahima Patil**
Verified By : **Shraddha Nikalje**

Dr. P. S. Kadam Amare
Oncogeneticist
Chief & Lab Director "Cancer & Clinical Genetics"
Lilac Insights Pvt. Ltd.

Dr. Hrushikesh Lele
Sr. Scientific Officer
Oncocytogenetics Dept.
Lilac Insights Pvt. Ltd.

- End of Report -

Conditions of Reporting/Disclaimer:

- The report relates only to the specimen submitted to the lab which was verified and confirmed at the time of specimen collection. Also it is presumed that the specimen belongs to the patient named or identified, such verification being carried out at the point of generation of the said specimen.
- Although Conventional karyotyping is a gold standard method of cytogenetics which gives a global whole genomic view of multiple known, unknown chromosomal abnormalities, small cryptic, subtle aberrations below 7-8 Mb resolution can be missed.
- In spite of known sensitivity and efficiency of the genetic test, the test results have to be correlated with other clinical and pathological finding for conclusive diagnosis and disease management.
- A test request may be revised or generated by Lilac geneticist with an intimation to an Oncologist if: 1) Incomplete requisition 2) After haematopathology Update.
- In 1-2 % of APL cases, FISH may turn out to be negative due to PML/RARA probe design which unable to detect cryptic insertion of PML to RARA. In such rare cases, It is advisable to check PML-RARA by molecular methods.
- In case of Multiple Myeloma, flowcytometry report indicating abnormal plasma cell population is important for reference, as small abnormal clones may get deduced as per limit of detection policy in FISH analysis.
- In case of FFPE FISH, if H & E stained slides &/or histopathology report is not provided by customer , LILAC proceed with H & E staining followed by histopathology remarks along with marking of tumor area by our consultant pathologist.
- Assays are performed in accordance with standard procedure on receipt. The reported results are dependent on individual assay methods, equipment used, method specificity, sensitivity and quality of specimen(s) received.
- Lilac Insights Pvt. Ltd. has policy to return the FFPE blocks within one month after final reporting with proper documentation of the dispatch of the block to customer from accession dept, Lilac. After dispatch, if there is no intimation from customer within two weeks, Lilac will not be responsible for the Dispatched FFPE block.
- Soft copies of oncocytogenetics reports are sent to customer by office mail ID. Also, Hardcopies are sent to customer only on the address provided by client.