Pathkind Labs

MC - 3055

Client
Gurugram
Pathkind Diagnostics Pvt. Ltd.
Plot No. 55-56, Udhyog Vihar Ph-IV, Gurugram - 122015

Processed By
Pathkind Diagnostics Pvt. Ltd.
Plot No. 55-56, Udhyog Vihar Ph-IV, Gurugram - 122015

Name	:	**Mr. PL177**	Billing Date	:	07/07/2023 12:29:31
Age	:	45 Yrs	Sample Collected on	:	10/07/2023 10:01:31
Sex	:	Male	Sample Received on	:	10/07/2023 11:02:13
P. ID No.	:	P1000100012880	Report Released on	:	18/07/2023 18:11:07
Accession No	:	**10002304936**	Barcode No.	:	10002304936
Referring Doctor	:	Self			
Referred By	:		Ref no.	:	

Report Status - Final

Test Name	Result	Biological Ref. Interval	Unit

HAEMATOLOGY

MDS Comprehensive Panel w/o Karyotyping
Myelodysplastic Syndrome (MDS) Panel

Immunophenotyping findings:

Flowcytometric immunophenotyping has been performed on peripheral blood sample. No significant blast population could be delineated in the sample immunophenotyped.

Neutrophils show mild dyspoiesis in the form of low side scatter and abnormal maturation pattern.
Monocytes show normal maturation pattern and dim expression of HLA-DR.

Impression: Morphologic and immunophenotypic features suggest dyspoiesis
Advice:

1. Correlation with BMA morphology findings.
2. Cytogenetics and Molecular Studies.

Markers used: CD45, CD19, CD34, CD38, CD13, CD33, CD15, CD117, HLA-DR, CD7, CD56, CD123, CD4, CD64 and CD14.

Comment: The samples was run on BC Navios 10 color flow cytometer as per the standardized international protocol.

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PATHKIND DIAGNOSTICS PVT. LTD.
Plot No. 55-56, Udyog Vihar, Phase-4, Gurugram
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FSC vs SSC was used to gate viable cells. CD45vs SSC gating strategy is used.
Software used for analysis is Kaluza 2.1.3

Note: Investigation should be interpreted understanding the limitation of the sample quality and various statistical parameters. An isolated laboratory report never forms a basis of any treatment decision. It should always be interpreted with the clinical course by the primary physician.

CYTOGENETICS

MDS FISH

Method: FISH

Specimen description	Sample quality is optimum for the test.
Fish Investigation For	Monosomy or deletion detection of chromosomes 5, 7 and 20 Aneuploidy detection of chromosomes 8
Method	By Fluorescence in situ Hybridization (FISH)
Probes Used	ZytoLight SPEC EGR1/D5S23,D5S721 ZytoLight SPEC CUX1/EZH2/CEN7 ZytoLight CEN 8 ZytoLight SPEC PTPRT/20q11

Result :

1st Hybridization

	Green	Orange	No. of Cells	Interpretation
Chromosome 5	EGR1	D5S23,D5S721		
Signals per cell	2	2	200	Normal

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2 Green and 2 Orange signals in 100% cell show normal status for chromosome 5.

2nd Hybridization

	Aqua (Blue)	Green	Orange	No. of Cells	Interpretation
Chromosome 7	CEN 7	SPEC CUX1	EZH2		
Signals per cell	2	2	2	200	Normal

2 Aqua (Blue), 2 Orange and 2 Green signals show normal status for chromosome 7.

3rd Hybridization

	Green	No. of Cells	Interpretation
Chromosome 8	CEN 8		
Signals per cell	2	200	Normal

2 Green signals in each cell show normal status for chromosome 8.

4th Hybridization

	Green	Orange	No. of Cells	Interpretation
Chromosome 20	SPEC PTPRT	20q11.21		
Signals per cell	2	2	200	Normal

2 Green and 2 Orange signals in each cell show normal status for chromosomes 20.

Result : nuc ish(EGR1/D5S23,D5S721)x2[200],(SPEC CUX1/EZH2/CEN 7)x2[200],(CEN 8)x2[200],(SPEC PTPRT/20q11)x2[200]

Interpretation : No abnormality found in chromosomes 5, 7, 8 and 20.

Limitations of FISH:
: *FISH for MDS is used to quickly rule out the most common chromosomal abnormalities that involves chromosome 5, 7, 8 and 20. The accuracy of this test is about 99%. Structural abnormalities like translocations, deletions and abnormalities of other chromosomes cannot be ruled out by FISH. Cytogenetics should be carried out for this.*

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Report Status - Final

Test Name	Result	Biological Ref. Interval	Unit

**** End of Report****

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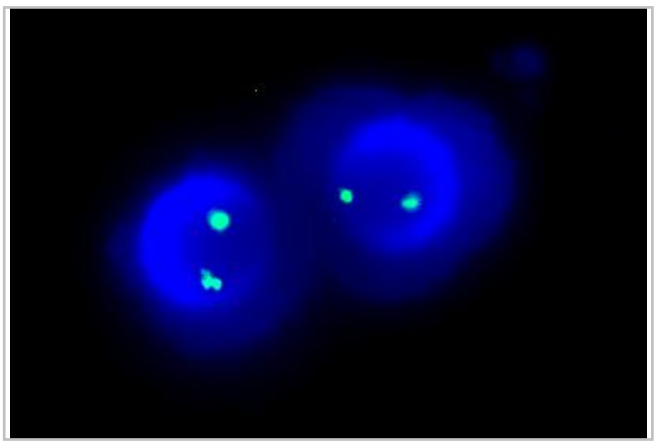
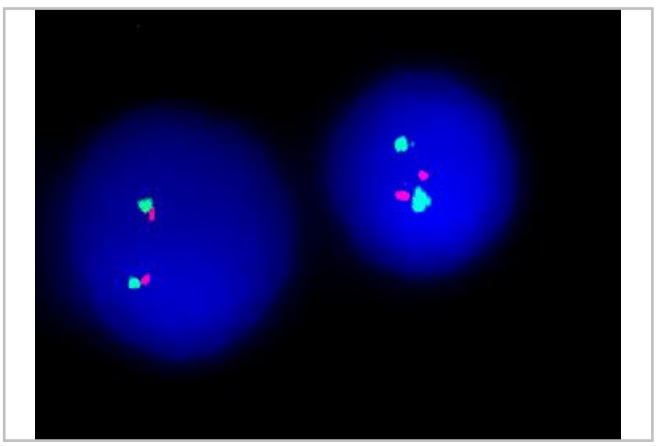
Patient ID:	**CG23-LF-101**
Patient Name:	**Mr. Dummy**
Gender:	**Male**
Specimen:	**Bone Marrow Aspirate**
Clinical Indication:	**? MDS**
Method:	**Fluorescence in situ hybridization (FISH) was performed on the nuclei for trisomy of chromosome 8 and monosomy or deletion of chromosomes 20.**

Slide Label : **Chromosome 8**



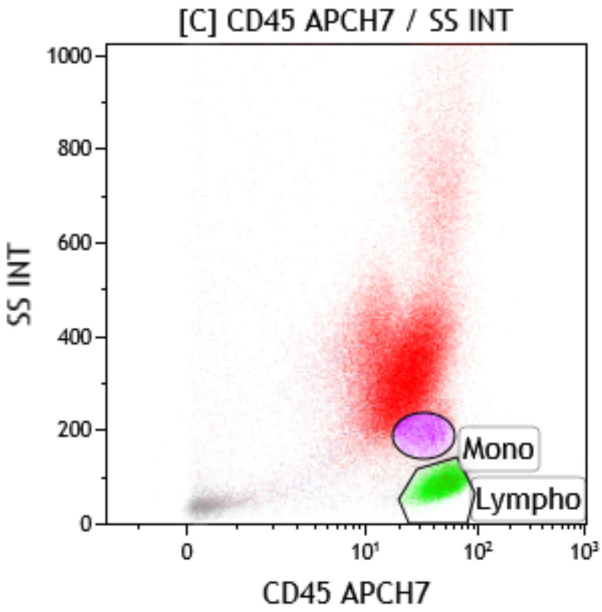
Description: **2 GREEN (CEN 8) - 100%**

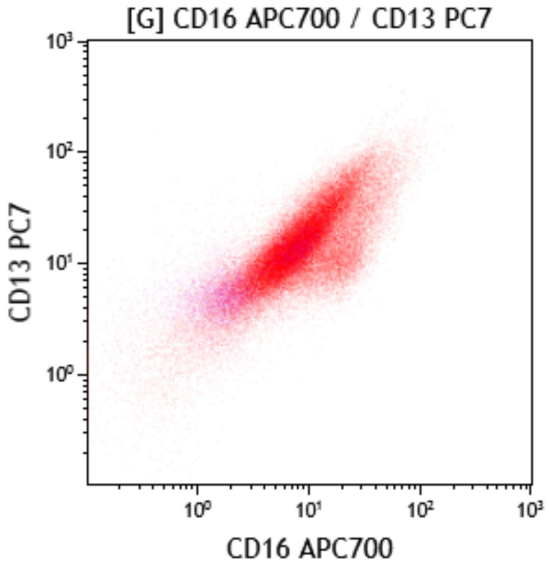
Slide Label : **Chromosome 20**

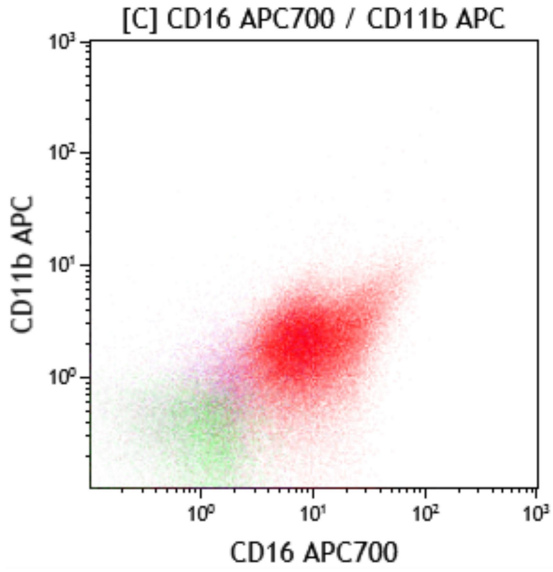


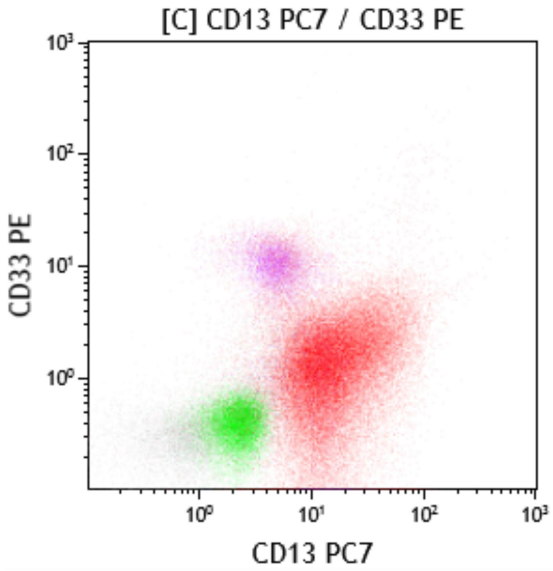
Description: **2 GREEN (SPEC PTPRT) AND 2 ORANGE (20q11.21) - 100%**

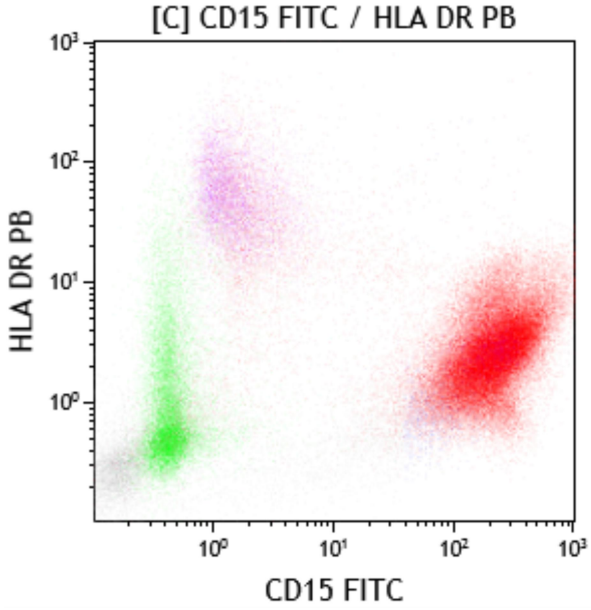
Results: nuc ish(EGR1/D5S23,D5S721)x2[200],(CUX1/EZH2/CEN 7)x2[200],(CEN 8)x2[200],(PTPRT/20q11.21)x2[200]

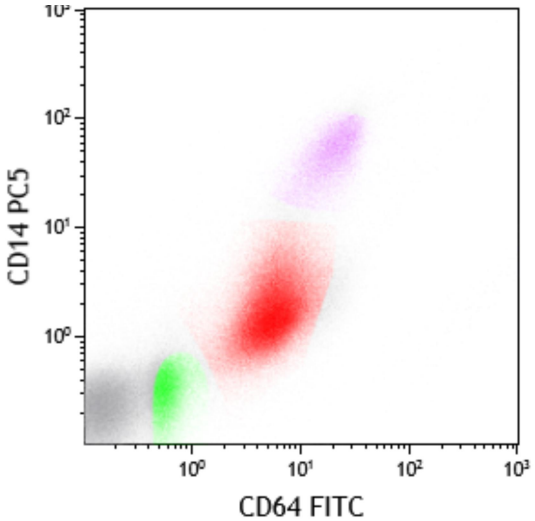

[C] CD45 APCH7 / SS INT
SS INT
CD45 APCH7
Mono
Lympho


[G] CD16 APC700 / CD13 PC7
CD13 PC7
CD16 APC700


[C] CD16 APC700 / CD11b APC
CD11b APC
CD16 APC700


[C] CD13 PC7 / CD33 PE
CD33 PE
CD13 PC7


[C] CD15 FITC / HLA DR PB
HLA DR PB
CD15 FITC


CD14 PC5
CD64 FITC

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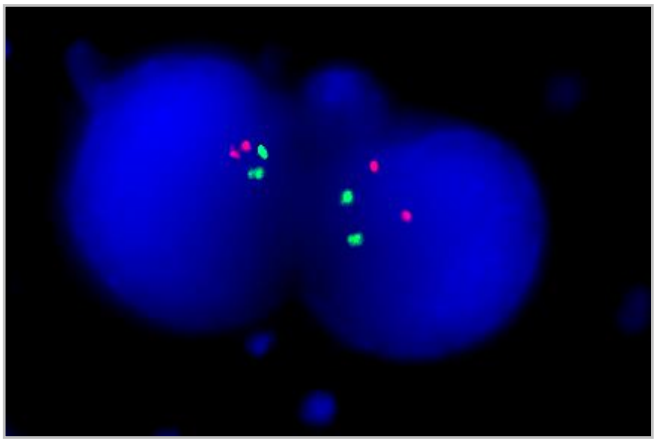
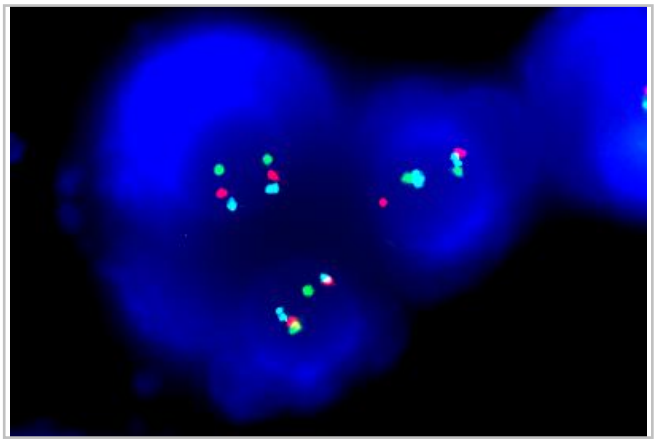
Patient Name:	**Mr. Dummy**
Gender:	**Male**
Specimen:	**Bone Marrow Aspirate**
Clinical Indication:	**? MDS**
Method:	**Fluorescence in situ hybridization (FISH) was performed on the nuclei for Monosomy or deletion of chromosomes 5 & 7.**

Slide Label : **Chromosome 5**



Description: **2 GREEN (SPEC EGR1) AND 2 ORANGE (D5S23,D5S721) - 100%**

Slide Label : **Chromosome 7**



Description: **2 GREEN (SPEC CUX1) 2 ORANGE (EZH2) AND 2 AQUA (CEN 7) - 100%**

Results: nuc ish(EGR1/D5S23,D5S721)x2[200],(CUX1/EZH2/CEN 7)x2[200],(CEN 8)x2[200],(PTPRT/20q11.21)x2[200]