



DIRECTORY OF SERVICES - ONCOGENETICS FY- 2020 - 2021





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Hematopoietic and Lymphoid Malignancies

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Hematopoietic and Lymphoid Malignancies



Acute Lymphoblastic Leukemia (ALL) Test panels

ACUTE LYMPHOBLASTIC LEUKEMIA (ALL) TEST PANELS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G10S07T01	Oncoinsights™ Cytogetic Panel B- ALL (Ploidy Analysis + FISH) + Molecular: IKZF1 mutation analysis + FISH for ph1 like ALL	Ploidy Analysis + FISH + Molecular	BMA of 3-5ml in Sodium Heparin + BMA 3-5ml in EDTA	Ploidy Analysis + FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> , [t(1;19)], <i>KMT2A (MLL) translocation</i> [t(9;11), t(11;19), t(4;11)], <i>IGH translocation</i> , +4, +10, +17 And FISH: Ph1-Like ALL: <i>ABL1, ABL2, PDGFRB, JAK2 & CRFL2</i> translocations, Molecular: <i>IKZF1</i> mutation Analysis .	8 - 10
2	G10S07T02	Cytogetic Panel B- ALL (CK + FISH) + Molecular: IKZF1 mutation analysis + FISH for ph1 like ALL	Conventional Karyotyping + FISH + Molecular	BMA of 3-5ml in Sodium Heparin + BMA 3-5ml in EDTA	Conventional Karyotyping, FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> , [t(1;19)], <i>KMT2A(MLL) translocation</i> [t(9;11), t(11;19), t(4;11)], <i>IGH translocation</i> , +4, +10, +17 And FISH: Ph1-Like ALL: <i>ABL1, ABL2, PDGFRB, JAK2 & CRFL2</i> translocations, Molecular: <i>IKZF1</i> mutation Analysis.	8 - 10
3	G10S07T03	Oncoinsights™ Cytogetic panel. Ploidy Analysis + FISH B-ALL, Molecular: IKZF1 mutation analysis Reflex to FISH for Ph1 Like ALL	Ploidy Analysis + FISH + Molecular	BMA of 3-5ml in Sodium Heparin + BMA 3-5ml in EDTA	Ploidy Analysis, + FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> , [t(1;19)], <i>KMT2A(MLL) translocation</i> [t(9;11), t(11;19), t(4;11)], <i>IGH translocation</i> , +4, +10, +17, Molecular <i>IKZF1</i> mutation Analysis & in Reflex FISH: Ph1 like ALL: <i>ABL1, ABL2, PDGFRB, JAK2 & CRFL2</i> translocations.	8 - 10
4	G10S07T04	Oncoinsights™ CK + FISH B-ALL, Molecular: IKZF1 mutation analysis Reflex to FISH for Ph1 Like ALL	Conventional Karyotyping + FISH + Molecular	BMA of 3-5ml in Sodium Heparin	Conventional Karyotyping, + FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> [t(1;19)], <i>KMT2A(MLL) translocation</i> [t(9;11), t(11;19), t(4;11)], <i>IGH translocation</i> , +4, +10, +17, Molecular <i>IKZF1</i> mutation Analysis & in Reflex FISH: Ph1 like ALL: <i>ABL1, ABL2, PDGFRB, JAK2 & CRFL2</i> translocations	8 - 10
5	G09S22T02	Oncoinsights™ Ph1 like ALL FISH panel extended	FISH	BMA of 3-5ml in Sodium Heparin	FISH: <i>ABL1, ABL2, PDGFRB, JAK2 & CRFL2</i> translocations	5
6	G10S07T06	Oncoinsights™ Ph1 Like B-ALL FISH Panel Extended + IKZF1 mutation analysis	FISH + Molecular	BMA of 3-5ml in Sodium Heparin	FISH: <i>ABL1, ABL2, PDGFRB, JAK2 & CRFL2</i> translocations, Molecular <i>IKZF1</i> mutation analysis	5
7	G09S07T09	Oncoinsights™ FISH panel B - ALL	FISH	BMA of 3-5ml in Sodium Heparin	FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> [t(1;19)], <i>KMT2A(MLL) translocation</i> [t(9;11), t(11;19), t(4;11)], <i>IGH translocation</i> , +4, +10, +17	5

Acute Lymphoblastic Leukemia (ALL) Test panels

ACUTE LYMPHOBLASTIC LEUKEMIA (ALL) TEST PANELS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
8	G09S07T10	Oncoinsights™ Cytogenetic panel B-ALL	Ploidy Analysis + FISH	BMA of 3-5ml in Sodium Heparin	Ploidy Analysis, + FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> [t(1;19)], <i>KMT2A(MLL)</i> translocation [t(9;11), t(11;19), t(4;11)], <i>IGH</i> translocation, +4, +10, +17	8 - 10
9	G09S07T14	Oncoinsights™ CK + FISH B-ALL	Conventional Karyotyping + FISH	BMA of 3-5ml in Sodium Heparin	Conventional Karyotyping, FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> [t(1;19)], <i>KMT2A(MLL)</i> translocation [t(9;11), t(11;19), t(4;11)], <i>IGH</i> translocation, +4, +10, +17	8 - 10
10	G09S07T15	Conventional Karyotyping for B-ALL	Conventional Karyotyping	BMA 3-5 ml in Sodium Heparin tube	Conventional Karyotyping for B-ALL	10
11	G10S07T05	Oncoinsights™ FISH panel B - ALL + IKZF1 mutation analysis	FISH + Molecular	BMA of 3-5ml in Sodium Heparin	FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> [t(1;19)], <i>KMT2A(MLL)</i> translocation [t(9;11), t(11;19), t(4;11)], <i>IGH</i> translocation, +4, +10, +17, Molecular <i>IKZF1</i> mutation analysis	5
12	G09S07T12	Oncoinsights™ Cytogenetic panel B-ALL Reflex to Ph1 Like ALL	Ploidy Analysis + FISH	BMA of 3-5ml in Sodium Heparin	Ploidy Analysis, + FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> [t(1;19)], <i>KMT2A(MLL)</i> translocation [t(9;11), t(11;19), t(4;11)], <i>IGH</i> translocation, +4, +10, +17 in Reflex FISH: <i>ABL1, ABL2, PDGFRB, JAK2 & CRFL2</i> translocations	8-10
13	G09S07T13	Oncoinsights™ CK + B-ALL Reflex to Ph1 Like ALL	CK + FISH	BMA of 3-5ml in Sodium Heparin	Conventional Karyotyping, + FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> [t(1;19)], <i>KMT2A(MLL)</i> translocation [t(9;11), t(11;19), t(4;11)], +4, +10, +17 in Reflex FISH: <i>ABL1, ABL2, PDGFRB, JAK2 & CRFL2</i> translocations	8-10
14	G09S07T09	Oncoinsights™ FISH panel B - ALL	FISH	BMA of 3-5ml in Sodium Heparin	FISH: <i>BCR-ABL1, ETV6-RUNX1, PBX1-TCF3</i> [t(1;19)], <i>KMT2A(MLL)</i> translocation [t(9;11), t(11;19), t(4;11)], <i>IGH</i> translocation, +4, +10, +17	5
15	G08S07T08	ALL Panel(deletion/duplications) by MLPA	Molecular	BMA of 3-5ml in EDTA tube	Molecular: ALL Panel by MLPA, loss of 5q, 6q, 7q, & <i>IKZF1, MYC, MYCN, ALK, JAK2 (V617F)</i> , deletions of 9p21.3, 13q, 17p, 17q & <i>PAX5</i> gene, <i>PTEN, ATM, ETV6, RUNX1</i> , & chromosome 12, 18 & 19.	10

Acute Lymphoblastic Leukemia (ALL) Test panels

ACUTE LYMPHOBLASTIC LEUKEMIA (ALL) TEST PANELS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
16	G08S07T06	ALL Multiplex by PCR	Molecular	BMA of 3-5ml in EDTA tube	Molecular: ALL Multiplex by PCR, t(1;19), t(9;22), t(12;21), t(4;11)	10
17	G08S07T05	BCR-ABL1 by qualitative PCR	Molecular	BMA/PB of 3-5ml in EDTA tube	Molecular: BCR-ABL1 for p210 & p190 by Qualitative PCR	4
18	G08S07T02	BCR-ABL1 by quantitative PCR (p210 & p190) & ABL1 kinase domain mutation	Molecular	BMA/PB of 3-5ml in EDTA tube	Molecular: BCR-ABL1 RT-qPCR for p210 & p190, ABL1 kinase domain mutation (sequencing)	7
19	G08S06T03	BCR-ABL1 by quantitative PCR (p210 & p190)	Molecular	BMA/PB of 3-5ml in EDTA tube	Molecular: BCR-ABL1 RT-qPCR for p210 & p190	7
20	G09S21T01	Oncoinsights™ FISH panel T - ALL	FISH	BMA of 3-5ml in Sodium Heparin	FISH: del(9p21), KMT2A(MLL) translocation, TCR-A/D(14q11) translocation, TCR-B(7q34) translocation, TLX1(10q24) translocation, TLX3(5q35) translocation/rearrangement.	5
21	G09S19T01	Oncoinsights™ FISH panel T-Cell Prolymphocytic Leukemia (T-PLL)	FISH	BMA of 3-5ml in Sodium Heparin	FISH: TCR-A/D (14q11) translocation, i(8q), +8	5
22	G08S16T01	Molecular Panel for ETP-ALL (FLT3-ITD and D835)	Molecular	BMA/PB of 3-5ml in EDTA tube	Molecular: FLT3-ITD and D835	3
23	G08S15T16	TPMT Genotyping	Molecular	BMA of 3-5ml in EDTA	Molecular: Thiopurine Methyltransferase Genotyping test	10

ACUTE LYMPHOBLASTIC LEUKEMIA INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
24	G09S07T01	Ploidy Analysis	Cytogenetics Study	BMA of 3-5ml in Sodium Heparin	Ploidy Analysis	5
25	G09S10T06	t(9;22)(BCR-ABL1)	FISH	BMA of 3-5ml in Sodium Heparin	FISH : t(9;22)(BCR-ABL1)	5

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Acute Lymphoblastic Leukemia (ALL) Test panels

ACUTE LYMPHOBLASTIC LEUKEMIA INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
26	G09S07T02	<i>NUP214(9q34.13) translocation/rearrangement</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : <i>NUP214(9q34.13) translocation/rearrangement</i>	5
27	G09S07T03	<i>JAK2(9p24) translocation/rearrangement</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : <i>JAK2(9p24) translocation/rearrangement</i>	5
28	G09S07T04	<i>TCF3 variant(v;19)</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : <i>TCF3 variant(v;19)</i>	5
29	G09S07T06	Trisomy for 4,10 & 17 analysis	FISH	BMA of 3-5ml in Sodium Heparin	FISH : Trisomy for 4,10 & 17 analysis	5
30	G09S07T07	t(1;19) <i>PBX1-TCF3</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : t(1;19) <i>PBX1-TCF3</i>	5
31	G09S07T08	t(12;21) <i>ETV6-RUNX1</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : t(12;21) <i>ETV6-RUNX1</i>	5
32	G09S32T01	<i>TCR-A/D t(14q11) translocation</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : <i>TCR-A/D t(14q11) translocation</i>	5
33	G09S32T02	<i>TCR-B t(7q34) translocation</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : <i>TCR-B t(7q34) translocation</i>	5
34	G09S32T03	<i>TLX1: t(10q24) translocation</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : <i>TLX1 t(10q24) translocation</i>	5
35	G09S32T04	<i>TLX3: t(5q35) translocation</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : <i>TLX3 t(5q35) translocation</i>	5
36	G09S32T05	del(9p21): p16/<i>CDKN2A</i> deletion	FISH	BMA of 3-5ml in Sodium Heparin	FISH : del(9p21): p16/ <i>CDKN2A</i> deletion	5
37	G09S35T01	<i>KMT2A (MLL) translocation</i>	FISH	BMA of 3-5ml in Sodium Heparin	FISH : <i>KMT2A(MLL) translocation</i>	5
38	G09S34T01	t(9;11) (<i>MLLT3-KMT2A</i>)	FISH	BMA of 3-5ml in Sodium Heparin	FISH : t(9;11)(<i>MLLT3-KMT2A</i>)	5

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies

Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Acute Lymphoblastic Leukemia (ALL) Test panels

ACUTE LYMPHOBLASTIC LEUKEMIA INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
39	G09S34T02	t(4;11)(AFF1-KMT2A)	FISH	BMA of 3-5ml in Sodium Heparin	FISH : t(4;11) (AFF1-KMT2A)	5
40	G09S34T03	t(11;19)(MLLT1-KMT2A)	FISH	BMA of 3-5ml in Sodium Heparin	FISH : t(11;19) (MLLT1-KMT2A)	5
41	G09S34T04	t(6;11)(MLLT4-KMT2A)	FISH	BMA of 3-5ml in Sodium Heparin	FISH : t(6;11) (MLLT4-KMT2A)	5
42	G09S07T05	ABL1(9q34) translocation/rearrangement	FISH	BMA of 3-5ml in Sodium Heparin	FISH : ABL1 (9q34) translocation/rearrangement	5
43	G09S22T03	ABL2 translocation/rearrangement	FISH	BMA of 3-5ml in Sodium Heparin	FISH : ABL2 translocation/rearrangement	5
44	G09S22T04	PDGFRB translocation/rearrangement	FISH	BMA of 3-5ml in Sodium Heparin	FISH : PDGFRB translocation/rearrangement	5
45	G09S22T05	CRLF2 translocation/rearrangement	FISH	BMA of 3-5ml in Sodium Heparin	FISH : CRLF2 translocation/rearrangement	5
46	G09S07T16	iAMP21	FISH	BMA of 3-5ml in Sodium Heparin	FISH : iAMP21	10
47	G08S07T01	ABL1 Kinase domain mutation	Molecular	BMA of 3-5ml in EDTA	Molecular : ABL1 Kinase domain mutation	7
48	G08S07T03	BCR-ABL1 RT-qPCR for p210 (IS)	Molecular	BMA of 6-10ml in EDTA	Molecular : BCR-ABL1 RT-qPCR for p210 (IS)	4
49	G08S07T04	BCR-ABL1 RT-qPCR for p190	Molecular	BMA of 6-10ml in EDTA	Molecular : BCR-ABL1 RT-qPCR for p190	4
50	G08S07T05	BCR-ABL1 breakpoint analysis by Qualitative PCR	Molecular	BMA of 3-5ml in EDTA	Molecular : BCR-ABL1 breakpoint analysis by Qualitative PCR	4
50	G08S07T07	IKZF1 alteration(exon 2-8) deletion	Molecular	BMA of 3-5ml in EDTA	Molecular : IKZF1 Alteration	10

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies

Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Acute Myeloid Leukemia Test panels

ACUTE MYELOID LEUKEMIA TEST PANELS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G10S01T02	Oncoinsights™ Advanced Combipanel Panel - AML	Conventional Karyotyping + FISH + NGS	BMA of 3ml in Sodium Heparin Tubes(2) + BMA of 3ml in EDTA tube(1)	Conventional Karyotyping + FISH: t(8;21), <i>PML-RARA</i> , inv(16), <i>BCR-ABL1</i> , <i>KMT2A(MLL)</i> translocation, -5/del(5q), -7/del(7q), +8, 3q26 (<i>MECOM</i>) translocation, del(17p) + NGS: HOTSPOT GENES: 23 genes, FULL GENES: 17 genes	10-12
2	G10S01T01	Oncoinsights™ combipnel - AML	Conventional Karyotyping + FISH + Molecular	BMA of 3ml in Sodium Heparin Tubes(2) + BMA of 3ml in EDTA tube(1)	Conventional Karyotyping + FISH: t(8;21), <i>PML-RARA</i> , inv(16), <i>BCR-ABL1</i> , <i>KMT2A(MLL)</i> translocation, -5/del(5q), -7/del(7q), +8, 3q26(<i>MECOM</i>) translocation, del(17p) + Molecular - FLT3 - ITD (Fragment Analysis), <i>FLT3-TKD</i> (sequencing), <i>CEBPA</i> , <i>NPM1</i> mutation by sequencing	8-10
3	G10S01T04	Oncoinsights™ Conventional Karyotyping + NGS AML	Conventional Karyotypig + NGS	BMA of 3ml in Sodium Heparin Tubes(2) + BMA of 3ml in EDTA tube(1)	Conventional Karyotyping + NGS: HOTSPOT GENES: 23 genes, Full Genes: 17 genes .	8-12
4	G10S01T03	Oncoinsights™ NGS Panel AML (Mutations & Translocations)	NGS	BMA/PB of 3-5ml in EDTA	NGS: HOTSPOT GENES: 23 genes, Full genes: 17 RNA - Fusion Driver genes: <i>ABL1</i> , <i>ALK</i> , <i>BCL2</i> , <i>BRAF</i> , <i>CCND1</i> , <i>CREBBP</i> , <i>EGFR</i> , <i>ETV6(TEL)</i> , <i>FGFR1</i> , <i>FGFR2</i> , <i>FUS</i> , <i>HMGA2</i> , <i>JAK2</i> , <i>KMT2A(MLL)</i> , <i>MECOM</i> , <i>MET</i> , <i>MLL10</i> , <i>MLLT3</i> , <i>MYBL</i> , <i>MYH11</i> , <i>NTRK3</i> , <i>NUP214</i> , <i>PDGFRA</i> , <i>PDGFRB</i> , <i>RARA</i> , <i>RBM15</i> , <i>RUNX1(AML1)</i> , <i>TCF3(E2A)</i> <i>TFE3</i> .	12-15
5	G09S09T08	Oncoinsights™ Cytogenetic Panel AML	Conventional Karyotyping + FISH	BMA of 3ml in Sodium Heparin Tubes(2)	Conventional Karyotyping + FISH: t(8;21), <i>PML-RARA</i> , inv(16), <i>BCR-ABL1</i> , <i>KMT2A(MLL)</i> translocation, -5/del(5q), -7/del(7q), +8, 3q26 (<i>MECOM</i>) translocation, del(17p)	8-10
6	G09S09T09	Oncoinsights™ FISH Panel - AML	FISH	BMA of 3ml in Sodium Heparin	FISH: t(8;21), <i>PML-RARA</i> , inv(16), <i>BCR-ABL1</i> , <i>KMT2A(MLL)</i> translocation, -5/del(5q), -7/del(7q), +8, 3q26 (<i>MECOM</i>) translocation, del(17p)	5
7	G08S01T04	Molecular Panel AML	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: <i>FLT3(ITD)</i> by Fragment Analysis, <i>FLT3-TKD</i> , <i>CEBPA</i> , <i>NPM1</i> by Sequencing	3

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Acute Myeloid Leukemia Test panels

ACUTE MYELOID LEUKEMIA TEST PANELS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
8	G08S01T06	KIT Molecular Panel AML	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: <i>KIT</i> (exon17)(PCR) and <i>KIT</i> (exon8) by Sequencing	5
9	G08S01T07	FLT3 Molecular Panel AML	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: <i>FLT3(ITD)</i> by Fragment Analysis, <i>FLT3-TKD</i> by Sequencing	9
10	G08S01T11	IDH1 & IDH2 by Sequencing	Molecular	BMA of 3-5ml in EDTA	Molecular: <i>IDH1 & IDH2</i> by Sequencing	6
11	G08S01T01	Oncoinsights™ Extended Molecular Panel	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: <i>FLT3-ITD & TKD, NPM1, CEBPA, ASXL1, DNMT3A, IDH1 & IDH2, TP53</i> mutation by sequencing	7
12	G08S01T14	MRD for t(8;21)(Real time PCR)	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: MRD for t(8;21)(Real time PCR)	10
13	G08S15T03	Oncoinsights™ NGS Panel AML(Mutations)	NGS	BMA/PB of 3-5ml in EDTA	NGS: Myeloid NGS - DNA Studies: HOTSPOT GENES :23 genes. FULL GENES 17 genes	10-12
14	G08S15T15	Oncoinsights™ NGS Panel AML(FUSIONS)	NGS	BMA/PB of 3-5ml in EDTA	NGS: Myeloid NGS - RNA Studies: Fusion Driver genes: <i>ABL1, ALK, BCL2, BRAF, CCND1, CREBBP, EGFR, ETV6(TEL), FGFR1, FGFR2, FUS, HMGA2, JAK2, KMT2A(MLL), MECOM, MET, MLLT10, MLLT3, MYBL, MYH11, NTRK3, NUP214, PDGFRA, PDGFRB, RARA, RBM15, RUNX1(AML1), TCF3(E2A) TFE3.</i>	10-12

ACUTE MYELOID LEUKEMIA INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
15	G09S33T01	t(9;22): BCR-ABL1	FISH	BMA of 3-5ml in Sodium Heparin	FISH: t(9;22): <i>BCR-ABL1</i>	5
16	G09S33T02	KMT2A(MLL) translocation	FISH	BMA of 3-5ml in Sodium Heparin	FISH: <i>KMT2A(MLL)</i> translocation	5

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Acute Myeloid Leukemia Test panels

ACUTE MYELOID LEUKEMIA INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
17	G09S33T03	t(9;11)(MLLT3-KMT2A), t(4;11)(AFF1-KMT2A), t(11;19)(MLLT1-KMT2A), t(6;11)(MLLT4-KMT2A)	FISH	BMA of 3-5ml in Sodium Heparin	FISH: t(9;11)(MLLT3-KMT2A), t(4;11)(AFF1-KMT2A), t(11;19)(MLLT1-KMT2A), t(6;11)(MLLT4-KMT2A)	5
18	G09S33T04	-5/del(5q)	FISH	BMA of 3-5ml in Sodium Heparin	FISH: -5/del(5q)	5
19	G09S33T05	-7/del(7q)	FISH	BMA of 3-5ml in Sodium Heparin	FISH: -7/del(7q)	5
20	G09S33T07	-20/del(20q)	FISH	BMA of 3-5ml in Sodium Heparin	FISH: -20/del(20q)	5
21	G09S33T06	trisomy 8	FISH	BMA of 3-5ml in Sodium Heparin	FISH: trisomy 8	5
22	G09S33T08	trisomy 21	FISH	BMA of 3-5ml in Sodium Heparin	FISH: trisomy 21	5
23	G09S09T01	Conventional Karyotyping for AML	Conventional Karyotyping	BMA of 3-5ml in Sodium Heparin	Conventional Karyotyping for AML	10-12
24	G09S09T02	t(1;22): RBM15-MKL1	FISH	BMA of 3-5ml in Sodium Heparin	FISH: t(1;22): RBM15-MKL1	5
25	G09S09T03	t(6;9): DEK-NUP214	FISH	BMA of 3-5ml in Sodium Heparin	FISH: t(6;9): DEK-NUP214	5
26	G09S09T04	inv(3): MECOM (EVI) translocation/ rearrangement	FISH	BMA of 3-5ml in Sodium Heparin	FISH: inv(3): MECOM translocation/ rearrangement	5
27	G09S09T05	trisomy 8	FISH	BMA of 3-5ml in Sodium Heparin	FISH: trisomy 8	5
28	G09S09T06	inv(16): CBF-B rearrangement	FISH	BMA of 3-5ml in Sodium Heparin	FISH: inv(16): CBF-B rearrangement	5

Acute Myeloid Leukemia Test panels

ACUTE MYELOID LEUKEMIA INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
29	G09S09T07	t(8;21): RUNX1-RUNX1T1 rearrangement	FISH	BMA of 3-5ml in Sodium Heparin	FISH: t(8;21) : RUNX1-RUNX1T1	5
30	G08S01T02	c-KIT D816V mutation	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: c-KIT (D816V) mutation	5
31	G08S01T03	FLT3-ITD Mutation	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: FLT3-ITD Mutation	3
32	G08S01T05	NPM1 mutation	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: NPM1 mutation	3
33	G08S01T08	FLT3-D835 mutation	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: FLT3-D835(TKD) mutation	5
34	G08S01T09	CEBPA mutation	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: CEBPA mutation	3
35	G08S01T10	c-KIT Exon 8 mutation	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: c-KIT Exon 8 mutation	5
36	G08S01T12	DNMT3A(R882) mutation	Molecular	BMA/PB of 3-5ml in EDTA	Molecular: DNMT3A(R882) mutation	4
37	G08S02T04	RT-qPCR for PML-RARA transcript quantitative analysis (BCR3)	Molecular	BMA of 3-5ml in EDTA Tube	Molecular: PML-RARA transcript copies(quantitative) RT-qPCR(BCR1)	5
38	G08S02T02	RT-qPCR for PML-RARA transcript quantitative analysis (BCR3)	Molecular	BMA of 3-5ml in EDTA Tube	Molecular: PML-RARA transcript copies(quantitative) RT-qPCR(BCR3)	5

Acute promyelocytic Leukemia (APL) Test panels

ACUTE PROMYELOCYTIC LEUKEMIA (APL) TEST PANELS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S25T01	FISH for APL or FISH for APML	FISH	BMA of 3-5ml in Sodium Heparin Tube	FISH: PML-RARA t(15;17)	5
2	G09S25T02	RARA Variant Analysis	FISH	BMA of 3-5ml in Sodium Heparin Tube	FISH: t(v;17)	5
3	G08S02T01	Qualitative Analysis for PML-RARA	Molecular	BMA of 3-5ml in EDTA Tube	Molecular: PML-RARA transcript analysis (qualitative)	4
4	G08S02T05	RT-qPCR for PML-RARA transcript quantitative analysis (BCR1)	Molecular	BMA of 3-5ml in EDTA Tube	Molecular: PML-RARA transcript copies (quantitative) RT-qPCR (BCR1 & BCR3)	5

Bone Marrow Transplant Test Menu

BONE MARROW TRANSPLANT TEST MENU						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S05T01	Sex-mismatched Post Bone marrow transplant monitoring	CK + FISH	BMA 3-5 ml in Sodium Heparin tube	Conventional Karyotyping + FISH: XX/XY	5
2	G09S25T02	Sex-mismatched Post Bone Marrow transplant monitoring	FISH	BMA of 3-5ml in Sodium Heparin Tube	FISH: XX/XY	5
3	G09S05T03	Post- BMT Case Conventional Karyotyping(Bone Marrow Transplant)	Conventional Karyotyping	BMA 3-5 ml in Sodium Heparin tube	Conventional Karyotyping	10-12
4	G08S03T03	STR Chimerism Analysis	PCR	PB of 3ml in EDTA	Molecular: STR Chimerism Analysis	10-12
5	G08S03T01	HLA Typing High Resolution Test	NGS	PB of 5ml in EDTA 2 tubes	Molecular: HLA Typing High Resolution Test	12

Chronic Eosinophilic Leukemia

CHRONIC EOSINOPHILIC LEUKEMIA (CEL)						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S23T01	Oncoinsights™ FISH Panel CEL	FISH	BMA 3-5 ml in Sodium Heparin tube	FISH: <i>PDGFRA</i> (4q12) translocation with <i>CHIC2</i> deletion, <i>PDGFRB</i> (5q33) translocation, <i>FGFR1</i> (8p12) translocation	5

B-Cell & T-Cell Lymphoma

B-CELL AND T-CELL LYMPHOMA						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S13T03	FISH for <i>IGH</i> Translocation (FFPE Block)	FISH	FFPE Tissue Block	FISH: <i>IGH</i> Translocation	7
2	G09S13T02	FISH for <i>IGH</i> Translocation (BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: <i>IGH</i> Translocation	5
3	G09S13T05	FISH for Mantle Cell Lymphoma (MCL) (FFPE Block)	FISH	FFPE Tissue Block	FISH: t(11;14)(<i>IGH/CCND1</i>)	7
4	G09S13T04	FISH for Mantle Cell Lymphoma (MCL) (BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: t(11;14)(<i>IGH/CCND1</i>)	5
5	G09S13T07	FISH for Follicular Lymphoma (FL)(FFPE Block)	FISH	FFPE Tissue Block	FISH: t(14;18)(<i>IGH/BCL2</i>)	7
6	G09S13T06	FISH for Follicular Lymphoma(FL)(BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: t(14;18)(<i>IGH/BCL2</i>)	5
7	G09S13T09	FISH for Burkitt Lymphoma(FFPE Block)	FISH	FFPE Tissue Block/ion)	FISH: t(8q24)(<i>MYC</i> translocation)	7
8	G09S13T08	FISH for Burkitt Lymphoma (BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: t(8q24)(<i>MYC</i> translocation)	5
9	G09S13T11	FISH for Diffused Large B-cell Lymphoma (DLBCL)(FFPE block)	FISH	FFPE Tissue Block	FISH: t(14;18)(<i>IGH/BCL2</i>), t(3q27)(<i>BCL6</i> translocation)	7
10	G09S13T10	FISH for Diffused Large B-cell Lymphoma (DLBCL)(BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: t(14;18)(<i>IGH/BCL2</i>), t(3q27)(<i>BCL6</i> translocation)	5

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

B-Cell & T-Cell Lymphoma

B-CELL LYMPHOMA AND T-CELL LYMPHOMA						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
11	G09S13T13	FISH for Dual Hit Lymphoma (High Grade B-cell Lymphoma) (FFPE Block)	FISH	FFPE Tissue Block	FISH: t(14;18)(IGH/BCL2), t(8q24)(MYC translocation)	7
12	G09S13T12	FISH for Dual Hit Lymphoma (High Grade B-cell Lymphoma) (BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: t(14;18)(IGH/BCL2), MYC(8q24) translocation	5
13	G09S13T15	Oncoinsights™ FISH Panel for Triple Hit Lymphoma (High Grade B-cell Lymphoma) (FFPE Block)	FISH	FFPE Tissue Block	FISH: t(14;18)(IGH/BCL2), MYC(8q24) translocation, t(3q27)(BCL6 translocation)	7
14	G09S13T14	Oncoinsights™ FISH Panel for Triple Hit Lymphoma (High Grade B-cell Lymphoma) (BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: t(14;18)(IGH/BCL2), MYC(8q24) translocation, t(3q27)(BCL6 translocation)	5
15	G09S13T17	FISH for MALT Lymphoma (FFPE Block)	FISH	FFPE Block	FISH: t(11;18)(MALT1) translocation, t(14;18)(IGH/MALT1), t(3q27)(BCL6 translocation)	7
16	G09S13T16	FISH for MALT Lymphoma (BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: t(11;18)(MALT1) translocation, t(14;18)(IGH/MALT1), t(3q27)(BCL6 translocation)	5
17	G09S13T19	FISH for Lymphoma B-Cell (FFPE Block)	FISH	FFPE Block	FISH: t(11;14)(IGH/CCND1), t(14;18)(IGH/BCL2), t(8q24)(MYC translocation), t(3q27)(BCL6 translocation)	7
18	G09S13T18	FISH for Lymphoma B-Cell (BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: t(11;14)(IGH/CCND1), t(14;18)(IGH/BCL2), t(8q24)(MYC translocation), t(3q27)(BCL6 translocation)	5
19	G09S13T21	FISH for Lymphoma T-Cell (FFPE Block)	FISH	FFPE Block	FISH: t(2p23)(ALK translocation), i(7q), +8	7
20	G09S13T20	FISH for Lymphoma T-Cell (BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: t(2p23)(ALK translocation), i(7q), +8	5
21	G09S13T23	Oncoinsights™ FISH Panel Hepatosplenic γ, δ T-cell Lymphoma (FFPE Block)	FISH	FFPE Block	FISH: i(7q), +8	7
22	G09S13T22	Oncoinsights™ FISH Panel Hepatosplenic γ, δ T-cell Lymphoma (BMA/PB)	FISH	BMA/PB of 3-5ml in Sodium Heparin tube	FISH: i(7q), +8	5

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

B-Cell & T-Cell Lymphoma

B-CELL LYMPHOMA AND T-CELL LYMPHOMA						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
23	G09S13T01	Conventional Karyotyping (Lymphoma)	Karyotyping	BMA/PB of 3-5ml in Sodium Heparin tube	Conventional Karyotyping – Lymphoma	8-10
24	G08S15T23	TP53 Sequencing on FFPE	Molecular	FFPE Block	Molecular: TP53 (exons 4-9) by sanger Sequencing	10
25	G08S15T01	TP53 Sequencing on BMA/PB	Molecular	3-5ml of BMA/PB in EDTA tube	Molecular: TP53 (exons 4-9) by sanger Sequencing	10

B-CELL LYMPHOMA AND T-CELL LYMPHOMA INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
26	G09S13T25	FISH for 8q24(MYC) Translocation (FFPE Block)	FISH	FFPE Tissue Block	FISH: 8q24(MYC) Translocation (FFPE Block)	7
27	G09S13T24	FISH for 8q24(MYC) Translocation(BM)	FISH	BMA of 3-5ml in Sodium Heparin tube	FISH: 8q24(MYC) Translocation(BM)	5
28	G09S13T27	FISH for Lymphoma 2p23 (ALK) translocation (FFPE Block)	FISH	FFPE Tissue Block	FISH: Lymphoma 2p23(ALK) translocation (FFPE Block)	7
29	G09S13T26	FISH for Lymphoma 2p23 (ALK) translocation (BM)	FISH	BMA of 3-5ml in Sodium Heparin tube	FISH: Lymphoma 2p23(ALK) translocation (BM)	5
30	G09S13T29	FISH for Lymphoma t(3q27)(BCL6) translocation (FFPE Block)	FISH	FFPE Tissue Block	FISH: Lymphoma t(3q27)(BCL6) translocation (FFPE Block)	7
31	G09S13T28	FISH for Lymphoma t(3q27)(BCL6) translocation (BM)	FISH	BMA of 3-5ml in Sodium Heparin tube	FISH: Lymphoma t(3q27)(BCL6) translocation (BM)	5
32	G09S13T31	FISH for Lymphoma t(11;18)(MALT1) translocation (FFPE Block)	FISH	FFPE Tissue Block	FISH: Lymphoma t(11;18)(MALT1) translocation (FFPE Block)	7
33	G09S13T30	FISH for Lymphoma t(11;18)(MALT1) translocation (BM)	FISH	BMA of 3-5ml in Sodium Heparin tube	FISH: Lymphoma t(11;18)(MALT1) translocation (BM)	5

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Chronic Lymphocytic Leukemia

CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) PANEL						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G10S02T01	Oncoinsights™ Combipanel CLL	CK + FISH + Molecular	BMA/PB 3-5 ml in Sodium Heparin tube and EDTA tube	Conventional Karyotyping by <i>B-Cell</i> Mitogen stimulation, FISH: del(13q), del(11q), del(6q), del(17p), +12, t(11;14), Molecular: <i>IGHV</i> mutations, <i>TP53</i> (exons 4-9)(sequencing)	8-10
2	G09S06T04	Oncoinsights™ Cytogenetic Panel CLL	CK + FISH	BMA/PB 3-5 ml in Sodium Heparin tube	Conventional Karyotyping by <i>B-Cell</i> Mitogen Stimulation, FISH: del(13q), del(11q), del(6q), del(17p), +12, t(11;14)	8-10
3	G09S06T05	Oncoinsights™ FISH Panel CLL	FISH	BMA/PB 3-5 ml in Sodium Heparin tube	FISH: del(13q), del(11q), del(6q), del(17p), +12, t(11;14)	5
4	G08S05T02	Oncoinsights™ Molecular Panel CLL	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: <i>NOTCH1</i> mutation(p2514Fs*4)(PCR), <i>TP53</i> (exons 4-9) by sequencing	10
5	G08S05T04	Oncoinsights™ Molecular Panel CLL (IGHV&TP53)	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: <i>IGHV</i> mutations, <i>TP53</i> (exons 4-9) by sequencing	10

CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
6	G09S31T01	-13/del(13q) Analysis	FISH	BMA/PB 3-5 ml in Sodium Heparin tube	FISH: -13/del(13q) Analysis	5
7	G09S31T02	del(17p) Analysis	FISH	BMA/PB 3-5 ml in Sodium Heparin tube	FISH: del(17p) Analysis	5
8	G09S31T03	del(11q) Analysis	FISH	BMA/PB 3-5 ml in Sodium Heparin tube	FISH: del(11q) Analysis	5
9	G09S06T03	Trisomy 12 Analysis	FISH	BMA/PB 3-5 ml in Sodium Heparin tube	FISH: Trisomy 12 Analysis	5
10	G09S06T02	14q32(<i>IGH</i>) Translocation	FISH	BMA/PB 3-5 ml in Sodium Heparin tube	FISH: 14q32(<i>IGH</i>) Translocation	5
11	G09S06T01	Conventional Karyotyping for CLL (B-Cell Stimulation)	Conventional Karyotyping	BMA/PB 3-5 ml in Sodium Heparin tube	Conventional Karyotyping for <i>CLL</i> (<i>B-Cell</i> Stimulation)	10

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Chronic Lymphocytic Leukemia

CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
12	G08S05T01	NOTCH1 mutation (p2514Fs*4)(PCR)	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: NOTCH1 mutation(p2514Fs*4)(PCR)	5
13	G08S05T03	IGHV mutations	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: IGHV mutations	10
14	G08S05T05	TP53 (exons 4-9) mutation	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: TP53 (exons 4-9) by sequencing	10

Chronic Myeloid Leukemia

CHRONIC MYELOID LEUKEMIA(CML)						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G10S03T01	Oncoinsights™ Combipanel chronic phase (CP)	CK + FISH + Molecular	BMA 3-5 ml in Sodium Heparin tube	Conventional Karyotyping + FISH: BCR-ABL1 + Molecular: BCR-ABL1 RT-qPCR for p210(IS)	7
2	G09S10T02	Oncoinsights™ Cytogenetic Panel CML - Chronic Phase (CP)	CK + FISH	BMA 3-5 ml in Sodium Heparin tube	Conventional Karyotyping + FISH: BCR-ABL1	7
3	G09S10T01	Oncoinsights™ Cytogenetic Panel CML - Blastic Phase (BP)	CK + FISH	BMA 3-5 ml in Sodium Heparin tube	Conventional Karyotyping + FISH: BCR-ABL1, +8, +19, +21, del(17p)	8-10
4	G09S10T03	Conventional Karyotyping	Karyotyping	BMA/PB 3-5 ml in sodium heparin tube	Conventional Karyotyping	5-7
5	G09S10T04	FISH for CML- Chronic Phase (CP)	FISH	BMA 3-5 ml in Sodium Heparin tube	FISH: BCR-ABL1	5
6	G09S10T05	Oncoinsights™ FISHPanel CML- Blastic Phase (BP)	FISH	BMA 3-5 ml in Sodium Heparin tube	FISH: BCR-ABL1, +8, +19, +21, del(17p)	5
7	G09S10T07	Oncoinsights™ FISH for BCR-ABL1 (FFPE Block)	FISH	FFPE Block	FISH: BCR-ABL1	7
8	G08S06T06	Molecular Panel for CML	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: BCR-ABL1 RT-qPCR for p210(IS) &/or p190, ABL1 Kinase domain mutation	7

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Chronic Myeloid Leukemia

CHRONIC MYELOID LEUKEMIA(CML)						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
9	G08S06T02	RT-qPCR for BCR-ABL1 transcript copies p210(IS), Quantitative Analysis	Molecular	BMA/PB 5-7 ml in EDTA tube	Molecular: BCR-ABL1 RT-qPCR for p210(IS)	4
10	G08S06T04	ABL1 Kinase domain mutation	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: ABL1 Kinase domain mutation	7
11	G08S06T03	BCR-ABL1 RT-qPCR for p210(IS) &/or p190	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: BCR-ABL1 RT-qPCR for p210(IS) &/or p190	7
12	G08S06T07	BCR-ABL1 RT-qPCR for p190	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: BCR-ABL1 RT-qPCR for p190	7
13	G08S06T01	BCR-ABL1 Qualitative Analysis	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: BCR-ABL1 transcript by breakpoint analysis (qualitative PCR)	4
14	G09S10T06	FISH for t(9;22)	FISH	BMA 3-5ml in Sodium Heparin	FISH: t(9;22)	5

Conventional Karyotyping, Constitutional Karyotyping, Cell line Karyotyping, Chromosomal Breakage studies

CONVENTIONAL KARYOTYPING, CONSTITUTIONAL KARYOTYPING, CELL LINE KARYOTYPING, CHROMOSOMAL BREAKAGE STUDIES						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S11T05	Conventional Karyotyping	Conventional Karyotyping	BMA 3-5 ml in Sodium Heparin tube	Conventional Karyotyping	10
2	G09S11T04	Constitutional Karyotyping	Conventional Karyotyping	BMA 3-5 ml in Sodium Heparin tube	Constitutional Karyotyping	10
3	G09S11T03	Oncoinsights™ Cell Line Karyotyping	Conventional Karyotyping	Suspension/ Monolayer Culture	Cell line Karyotyping	15
4	G09S11T06	Oncoinsights™ Chromosomal Breakage studies in Fanconi's Anemia/Aplastic Anemia	Spontaneous and MMC, DEB-induced Chromosomal Breakage studies	PB 5-7 ml of patient and 5-7ml PB of unrelated age-sex matched control in Sodium Heparin tube	Chromosomal Breakage studies	10

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Hairy Cell Leukemia

Hairy cell leukemia (HCL)						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S18T01	Oncoinsights™ FISH panel HCL	FISH	BMA 3-5 ml in Sodium Heparin tube	FISH: <i>IGH, TCR-A/D</i> (14q11) translocation, -7/del(7q)	5
2	G08S08T01	Molecular test HCL (<i>BRAFV600E</i> mutation)	Molecular	BMA/PB 3-5 ml in EDTA tube	Molecular: <i>BRAF V600E</i> mutation (<i>ASO-PCR</i>)	6

Multiple Myeloma

Multiple Myeloma						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S20T09	Oncoinsights™ Cytogenetic panel (MM) Multiple Myeloma	FISH + CK	BMA 5-6ml in Sodium Heparin tube	Conventional Karyotyping + FISH: del(17p), -13/del(13q), del(1p), Amp(1q), <i>IGH</i> translocation , t(11;14), t(4;14), t(14;16), t(14;20), t(6;14), +3, +5, +7, +9, +15 (hyperdiploidy)	8-10
2	G09S20T01	Oncoinsights™ FISH Panel MM Multiple Myeloma	FISH	BMA 5-6ml in Sodium Heparin tube	FISH: del(17p), -13/del(13q), del(1p), Amp(1q), <i>IGH</i> translocation , t(11;14), t(4;14), t(14;16), t(14;20), t(6;14), +3, +5, +7, +9, +15 (hyperdiploidy)	5
3	G08S11T02	<i>MYD88 (L265P)</i>	Molecular	BMA of 3-5ml in EDTA tube	Molecular: <i>MYD288 (L265P)</i>	6

MULTIPLE MYELOMA INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
4	G09S20T03	del(17p) analysis	FISH	BMA 5-6ml in Sodium Heparin tube	FISH: del(17p) analysis	5
5	G09S20T04	<i>IGH/CCND3: t(6;14) Analysis</i>	FISH	BMA 5-6ml in Sodium Heparin tube	FISH: <i>IGH/CCND3: t(6;14) Analysis</i>	5

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Multiple Myeloma

MULTIPLE MYELOMA INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
6	G09S20T05	IGH/MAFB: t(14:20) Analysis	FISH	BMA 5-6ml in Sodium Heparin tube	FISH: IGH/MAFB:t(14:20) Analysis	5
7	G09S20T06	IGH/MAF: t(14:16) Analysis	FISH	BMA 5-6ml in Sodium Heparin tube	FISH: IGH/MAF: t(14:16) Analysis	5
8	G09S20T07	IGH/IGRF3: t(4;14) Analysis	FISH	BMA 5-6ml in Sodium Heparin tube	FISH: IGH/IGRF3: t(4;14)	5
9	G09S20T08	1q Amplification, 1p deletion analysis	FISH	BMA 5-6ml in Sodium Heparin tube	FISH: 1q amplification, 1p deletion	5

Myelodysplastic Syndromes

MYELODYSPLASTIC SYNDROMES						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G10S04T03	Oncoinsights™ Advanced Combipanel - MDS	Conventional Karyotyping + FISH + NGS	BMA of 3-5 ml in Sodium Heparin and EDTA Tubes	Conventional Karyotyping + FISH: -5/del (5q), -7/del (7q), +8,del (20q), del (17p) + NGS: HOTSPOT GENES : 23 genes, FULL GENES:17 genes.	10-12
2	G10S04T04	Oncoinsights™ MDS Conventional Karyotyping + NGS	Conventional Karyotyping + NGS	BMA of 3-5 ml in Sodium Heparin and EDTA Tubes	Conventional Karyotyping + NGS: HOTSPOT GENES : 23 genes, FULL GENES:17 genes.	10-12
3	G08S15T03	Oncoinsights™ MDS NGS (Mutations) Panel	NGS	BMA of 3-5 ml in EDTA Tubes	NGS: hotspot genes - 23 genes, full genes: 17 genes.	10-12
4	G10S04T01	Oncoinsights™ Combi-panel MDS	Conventional Karyotyping+ FISH+Molecular	BMA 3-5ml in Sodium Heparin tube + 3-5ml in EDTA tube	Conventional Karyotyping + FISH: -5/del (5q), -7/del (7q), +8,del (20q), del (17p)+ Molecular: ASXL1, DNMT3A, TP53 (exons 4-9) mutation	08-10
5	G09S08T01	Oncoinsights™ Cytogenetic panel MDS	Conventional Karyotyping+ FISH	BMA 3-5ml in Sodium Heparin tube	Conventional Karyotyping + FISH: -5/del (5q), -7/del (7q), +8,del (20q), del (17p)	08-10

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Myelodysplastic Syndromes

MYELODYSPLASTIC SYNDROMES						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
6	G09S08T03	Conventional Karyotyping for MDS	Conventional Karyotyping	BMA 3-5ml in Sodium Heparin tube	Conventional Karyotyping	8-10
7	G09S08T03	Oncoinsights™ FISH panel MDS	FISH	BMA 3-5ml in Sodium Heparin tube	FISH -5/del(5q), -7/del(7q), +8, del(20q), del(17p)	5
8	G08S09T07	Oncoinsights™ Molecular panel MDS	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : <i>ASXL1</i> , <i>TP53</i> (exons 4-9), <i>DNMT3A</i> mutation	10

MYELODYSPLASTIC SYNDROMES INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
9	G08S09T02	SF3B-1 (exon14-16) mutation	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : <i>SF3B-1</i> (exon14-16) by sequencing	5
10	G08S09T03	IDH1 & IDH2 mutation	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : <i>IDH1</i> & <i>IDH2</i> by Sequencing	6
11	G08S09T04	MYD88 L265P mutation	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : <i>MYD88 L265P</i> mutation	6
12	G08S09T05	ASXL1 mutation	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : <i>ASXL1</i> by Sequencing	5
13	G08S09T06	DNMT3A(R882) mutation	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : <i>DNMT3A(R882)</i> mutation	4
14	G08S09T08	TP53 mutation	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : <i>TP53</i> mutation(exon 4-9)	10

■ FISH: FISH Studies ■ Molecular: Molecular Studies ■ IHC: IHC Studies ■ Flowcytometry: Flowcytometry Studies ■ ddPCR: ddPCR Studies ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Myeloproliferative Neoplasms, Myeloproliferative Disorders

MYELOPROLIFERATIVE NEOPLASMS/MYELOPROLIFERATIVE DISORDERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S14T05	Oncoinsights™ FISH panel MPN/MPD	FISH	BMA/PB 3-5ml in Sodium Heparin tube	FISH - 7/del(7q), +8, del(20q), PDGFRA (4q12) rearrangement with CHIC2 deletion, PDGFRB (5q33) translocation	5
2	G08S10T03	Oncoinsights™ JAK2 Reflex Panel MPN/MPD	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : JAK2 V617F mutation (ASO-PCR) and JAK2 (exon12) by sequencing	5
3	G08S10T06	Oncoinsights™ Molecular Panel MPN/MPD JAK2 V617F, MPL & CALR	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : JAK2 V617F, MPL W515 mutation (ASO-PCR), CALR (exon 9)(sequencing)	5
4	G08S10T05	Oncoinsights™ Molecular Panel MPN/MPD JAK2 Exon 12, MPL & CALR	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : JAK2 (exon 12), MPL W515 mutation (ASO-PCR), CALR (exon 9)(sequencing)	5
5	G08S10T04	Oncoinsights™ Molecular Panel MPN/MPD JAK2 reflex, MPL & CALR	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : JAK2 V617F, JAK2 (exon 12), MPL W515 mutation (ASO-PCR), CALR (exon 9) (sequencing)	5
6	G08S10T09	MPN Panel with BCR-ABL1:	Molecular	BMA/PB 3-5ml in EDTA tube (Lavendar Top)	Molecular : BCR-ABL1 by Qualitative PCR, JAK2 (Exon-14(V617F) & Exon -12), CALR, MPL	5

MYELOPROLIFERATIVE NEOPLASMS/MYELOPROLIFERATIVE DISORDERS INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
7	G09S14T01	Myeloproliferative Neoplasms - Conventional Karyotyping	Conventional Karyotyping	BMA/PB 3-5ml in Sodium Heparin tube	Myeloproliferative Neoplasms - Conventional Karyotyping	10
8	G09S14T02	PDGFRB (5q33) rearrangement	FISH	BMA/PB 3-5ml in Sodium Heparin tube	FISH : PDGFRB (5q33) translocation/rearrangement	5
9	G09S14T03	PDGFRA (4q12) rearrangement with CHIC2 deletion,	FISH	BMA/PB 3-5ml in Sodium Heparin tube	FISH : PDGFRA (4q12) rearrangement with CHIC2 deletion	5
10	G09S14T04	FGFR1(8p12) rearrangement	FISH	BMA/PB 3-5ml in Sodium Heparin tube	FISH : FGFR1(8p12)translocation/ rearrangement	5
11	G08S10T01	JAK2 V617F mutation	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : JAK2 V617F mutation	5
12	G08S10T08	JAK2 Exon-12 mutation	Conventional Karyotyping	BMA/PB 3-5ml in Sodium Heparin tube	Molecular : JAK2 Exon-12 mutation	5
13	G08S10T02	CALR (Exon-9) mutation	Molecular	BMA/PB 3-5ml in EDTA tube	Molecular : CALR(Exon-9) mutation by sequencing	5
14	G08S10T07	MPL Mutation	Molecular	BMA/PB 3-5ml in Sodium Heparin tube	Molecular : MPL Mutation	5

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Flow Cytometry



Flowcytometry

BONE MARROW ASPIRATE STUDIES

S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G11S01T01	Bone Marrow Advance	Multiple	CBC sample, Aspirate Slides, Imprint Slides, Liquid BM Samples, Bone Marrow Biopsy in formalin/AZF solution.	Multiple: CBC Advance (CBC, Peripheral Smear Review, Reticulocyte Count, Immature Platelet fraction, Reticulocyte Hemoglobin, Immature Reticulocyte Fraction), Bone Marrow Aspirate, Iron Staining, Bone marrow Biopsy with Reflex IHC	1-2 & 8 for BMB with reflex IHC

BONE MARROW ASPIRATE STUDIES

S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G11S01T02	Flowcytometry for leukemia's	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: Flowcytometry for Leukemias	1-2
2	G11S01T03	Flowcytometry for lymphoma's	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: Flowcytometry for Lymphomas	1-2
3	G11S01T04	Flowcytometry for myeloma	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: Flowcytometry for Myeloma	1-2
4	G11S01T05	Flowcytometry for Minimal Residual Disease (MRD) for B-ALL	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: Flowcytometry for Minimal Residual Disease (MRD) for B-ALL	1-2
5	G11S01T06	Flowcytometry for Minimal Residual Disease (MRD) for T-ALL	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: Flowcytometry for Minimal Residual Disease (MRD) for T-ALL	1-2
6	G11S01T07	Flowcytometry for Minimal Residual Disease (MRD) for CLL	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: Flowcytometry for Minimal Residual Disease (MRD) for CLL	1-2
7	G11S01T08	Flowcytometry for Minimal Residual Disease (MRD) for Lymphoma	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: Flowcytometry for Minimal Residual Disease (MRD) for Lymphoma	1-2
8	G11S01T09	Flowcytometry for Minimal Residual Disease (MRD) for AML	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: Flowcytometry for Minimal Residual Disease (MRD) for AML	1-2
9	G11S01T10	Flowcytometry for Minimal Residual Disease (MRD) for MM	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: Flowcytometry for Minimal Residual Disease (MRD) for MM	1-2
10	G11S01T11	Primary Immuno Deficiency (PID) Screening panel	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: T cells with CD4 and CD8 subsets, Naive T cell enumeration, Effector and Memory Cells, B cells, NK cells and T - regulatory cell counts	1-2

Flowcytometry

BONE MARROW ASPIRATE STUDIES

S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
11	G11S01T12	Lymphocyte subset analysis (LSSA) – comprehensive	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: T cells with <i>CD4</i> and <i>CD8</i> subsets, Naive <i>T cell</i> enumeration, Effector and Memory Cells, <i>B cells</i> , <i>NK cells</i> and <i>T</i> - regulatory cell counts	1-2
12	G11S01T13	PNH by FLAER	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: PNH by FLAER	1-2
13	G11S01T14	ALPS Screening	Flowcytometry	3ml BMA/PB in EDTA	Flowcytometry: ALPS Screening	1-2

Sarcoma



Sarcomas

SARCOMAS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S38T01	EWSR1(22q12) translocation	FISH	FFPE	FISH: EWSR1(22q12) translocation	7
2	G09S38T02	EWSR1-FLI1 translocation	FISH	FFPE	FISH: EWSR1-FLI1 translocation	7
3	G09S37T01	Synovial Sarcoma	FISH	FFPE	FISH: t(X;18): SS18 translocation	7
4	G09S37T02	Myxoid Sarcoma	FISH	FFPE	FISH: t(12;16): FUS translocation	7
5	G09S37T03	Infantile fibrosarcoma	FISH	FFPE	FISH: EWSR1(22q12) translocation, FISH: NTRK3 (15q25) translocation	7
6	G09S37T04	Extra Skeletal Myxoid chondrosarcoma	FISH	FFPE	FISH: NR4A3(TEC)(9q22.3) translocation	7
7	G09S37T05	Alveolar Rhabdomyosarcoma	FISH	FFPE	FISH: FOXO1(13q14) translocation	7
8	G09S37T06	MDM2 Gene Amplification	FISH	FFPE	FISH: MDM2 Gene Amplification	7
9	G10S08T01	MDM2 Gene Amplification, TP53 mutation	FISH + Molecular	FFPE	FISH: MDM2 Gene Amplification, Molecular: TP53 mutation (exon 4-9)	10
10	G09S37T07	TFE3 t(Xp11.2) translocation in Alveolar soft tissue sarcoma	FISH	FFPE	FISH: TFE3 t(Xp11.2) translocation	7
11	G08S19T01	CTNNB1(B-Catenin) mutations in Desmoid type Fibrometosis	Molecular	FFPE	Molecular: CTNNB1(B-Catenin) mutations hot spots	7-10
12	G08S15T02	TP53 mutation sequencing	Molecular	FFPE	Molecular: TP53 mutation sequencing (exon 4-9)	10

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies

Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Solid Tumors



Bladder Cancer and Brain Tumors/Neurological Cancers/Neuroblastoma

BONE MARROW ASPIRATE STUDIES

S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S36T01	FISH Panel Bladder Cancer (Urothelial Cancer)	FISH	Urine in Sterile Container without any additives	FISH: Aneuploidy of Chromosome 3, 7, 17 & <i>del(9p)</i>	5
2	G09S39T01	FISH Panel Brain Tumors/Neurological Cancers	FISH	FFPE Tissue	FISH: 11p36 deletion, 19p13 deletion	7
3	G09S40T01	FISH Panel Neuroblastoma	FISH	FFPE Tissue	FISH: <i>MYCN</i> amplification, 1p36 deletion	7

Breast Cancer

BREAST CANCER

S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G09S17T01	FISH for <i>ERBB2(HER2/neu)</i> Breast Cancer	FISH	FFPE Block	FISH: <i>ERBB2 (HER2/neu)</i> Amplification	7
2	G09S28T03	Oncoinsights™ FISH <i>NTRK3</i> & <i>ETV6</i> translocation Breast Cancer	FISH	FFPE Block	FISH: <i>NTRK3</i> & <i>ETV6</i> translocation	7
3	G09S28T02	<i>NTRK3</i> translocation	FISH	FFPE Block	FISH: <i>NTRK3</i> translocation	7
4	G09S28T01	<i>ETV6</i> translocation	FISH	FFPE Block	FISH: <i>ETV6</i> translocation	7
5	G08S04T03	Germline Panel	NGS	3ml-5ml of Peripheral blood in 2 tubes of EDTA	NGS: <i>BRCA1</i> , <i>BRCA2</i> , <i>TP53</i> and <i>ACMG</i> recommended genes	15-20
6	G08S04T05	<i>PIK3CA</i> mutation analysis	Molecular	3ml PB in EDTA	Molecular: <i>PIK3CA</i> mutation by Sanger Sequencing	7
7	G08S04T04	Germline 3 Panel (<i>HBOC</i>)	NGS	3ml-5ml of Peripheral blood in 2 tubes of EDTA	NGS: <i>BRCA1</i> , <i>BRCA2</i> and <i>TP53</i>	15-20
8	G08S04T02	Germline - <i>BRCA1</i> & <i>BRCA2</i>	NGS	3ml-5ml of Peripheral blood in 2 tubes of EDTA	NGS: <i>BRCA1</i> , <i>BRCA2</i>	15-20
9	G08S14T02	56 Gene Test	NGS	FFPE Block	NGS: 56 Genes	15-20
10	G08S14T03	56 Gene Test - Liquid Biopsy	NGS	10 ml Peripheral Blood in Streck Tube (2tubes)	NGS: 56 Genes	15-20

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Colorectal Cancer

COLORECTAL CANCER						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G08S13T06	Colorectal Cancer Panel	Molecular	FFPE Block	Molecular: KRAS, NRAS by Sanger Sequencing, BRAF (ASO-PCR)	6
2	G08S13T12	Colorectal Cancer Panel with PIK3CA	Molecular	FFPE Block	Molecular: KRAS, NRAS, PIK3CA mutation by Sanger Sequencing, BRAF (ASO-PCR)	6
3	G08S13T13	Colorectal Cancer Panel with MSI by PCR: KRAS, NRAS & BRAF Sequencing + MSI by PCR	Molecular	FFPE Block & PB in EDTA(for PCR)	Molecular: KRAS, NRAS by Sanger Sequencing, BRAF (ASO-PCR) & Molecular: Microsatellite Instability Index [MLH-1, MSH-2, MSH-6, PMS-2] by PCR	6 & 11
4	G08S13T14	Colorectal Cancer Panel with MSI by IHC: KRAS, NRAS & BRAF Sequencing + MSI by IHC	Molecular IHC	FFPE Block	Molecular: KRAS, NRAS by Sanger Sequencing, BRAF (ASO-PCR) & Immunohistochemistry: Microsatellite Instability Index [MLH-1, MSH-2, MSH-6, PMS-2] by IHC	6 & 10
5	G08S14T02	56 Gene Test	NGS	FFPE Block	NGS: 56 Genes	15-20
6	G08S14T03	56 Gene Test - Liquid Biopsy	NGS	10 ml Peripheral Blood in Streck Tube (2tubes)	NGS: 56 Genes	15-20

INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
7	G08S13T07	Microsatellite Instability Index by IHC	IHC	FFPE Block	Immunohistochemistry: Microsatellite Instability Index by IHC [MLH-1, MSH-2, MSH-6, PMS-2]	5
8	G08S13T08	Microsatellite Instability Index by PCR	Molecular	FFPE Block & PB in EDTA (for PCR)	Molecular: Microsatellite Instability Index by PCR [MLH-1, MSH-2, MSH-6, PMS-2]	11
9	G08S13T01	KRAS (exon2, exon3) testing	Molecular	FFPE Block	Molecular: KRAS (exon2, exon3) testing by Sanger Sequencing	6
10	G08S13T10	NRAS (exon2, exon3) testing	Molecular	FFPE Block	Molecular: NRAS(exon2,exon3) testing by Sanger Sequencing	6
11	G08S13T03	BRAF V600E	Molecular	FFPE Block	Molecular: BRAF V600E mutation (ASO-PCR)	6

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Colorectal Cancer

INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
12	G08S13T11	PIK3CA mutation analysis	Molecular	3ml PB in EDTA	Molecular: PIK3CA mutation by Sanger Sequencing	7
13	G08S13T02	c-KIT (ex 9,11,13,17) mutation sequencing	Molecular	FFPE Block	Molecular: c-KIT(ex 9,11,13,17) mutation sequencing	7
14	G08S13T04	EGFR (exon18-21) mutation testing	Molecular	FFPE Block	Molecular: EGFR (exon18-21) mutation testing by Sanger sequencing	6
15	G08S13T05	EGFR (exon18-21) mutation & PDL1 by IHC	Molecular	FFPE Block	Molecular: EGFR (exon18-21) mutation testing by Sanger sequencing & Immunohistochemistry: PDL1 testing by IHC	6
16	G08S13T09	EGFR (exon18-21) mutation & KRAS (exon2, exon3) testing	Molecular	FFPE Block	Molecular: EGFR (exon18-21) mutation & KRAS (exon2, exon3) testing	6

Gastrointestinal Stromal Tumors

GASTROINTESTINAL STROMAL TUMORS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G08S18T02	KIT GIST panel	Molecular	FFPE Block	Molecular: KIT (exons 9, 11, 13, 17) mutations by Sanger Sequencing	6
2	G08S18T01	PDGFRA Sequencing test	Molecular	FFPE Block	Molecular: PDGFRA by Sanger Sequencing	6
3	G08S14T02	56 Gene Test	NGS	FFPE Block	NGS: 56 Genes	15-20
4	G08S14T03	56 Gene Test - Liquid Biopsy	NGS	10 ml Peripheral Blood in Streck Tube (2tubes)	NGS: 56 Genes	15-20
5	G08S17T01	FISH ERBB2 (Her2/Neu) Gastric Cancer	FISH	FFPE Block	FISH: ERBB2(Her2/Neu) amplification in Gastric Cancer	7

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Melanoma

MELANOMA						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G08S08T01	BRAF V600E	Molecular	FFPE Block	Molecular: BRAF V600E mutation (ASO-PCR)	6
2	G08S14T02	56 Gene Test	NGS	FFPE Block	NGS: 56 Genes	15-20

Miscellaneous

MISCELLANEOUS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G08S15T23	TP53 Sequencing on FFPE	Molecular	FFPE Block	Molecular: TP53 (exons 4-9) by sanger Sequencing	10
2	G08S15T01	TP53 Sequencing on BMA/PB	Molecular	3-5ml of BMA/PB in EDTA tube	Molecular: TP53 (exons 4-9) by sanger Sequencing	10
3	G08S15T02	TP53 Sequencing on BMA/PB	Molecular	3-5ml of BMA/PB in EDTA tube	Molecular: TP53 (exons 2-11) by sanger Sequencing	10
4	G08S15T19	Oncoinsights™ Thyroid Cancer Panel	NGS	FFPE (>20% Tumor Nuclei with a minimum tumor surface area of 5mm * 5mm (25mm ²))	NGS: EGFR, BRAF, KRAS, NRAS, HRAS, RET-PTC, PAX8-PPAR gamma, TSC1, TSC2	24
5	G09S37T06	MDM2 Amplification in solid tumors	FISH	FFPE Block	Molecular: MDM2 Amplification	7
6	G10S08T01	MDM2 Amplification, TP53 mutation in solid tumors	Molecular	FFPE Block	Molecular: MDM2 Amplification, TP53 mutation (exon 4-9)	10

Non-small Cell Lung Cancer (NSCLC)

NON-SMALL CELL LUNG CANCER(NSCLC)						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
1	G10S05T01	FISH Combipanel NSCLC	FISH + Molecular	FFPE Block (Preferably Tumor Area Marked)	FISH: ALK Translocation, ROS1 translocation Molecular: EGFR (exon (18-21) mutations by sequencing.	10
2	G09S16T06	Oncoinsights™ FISH Combipanel-1 NSCLC W/O MET	FISH + Molecular+IHC	FFPE Block (Preferably Tumor Area Marked)	FISH: ALK Translocation, ROS1 translocation, Molecular: EGFR (exon (18-21) mutations by sequencing, IHC: PDL1	10
3	G10S05T02	Oncoinsights™ FISH Combipanel-1 NSCLC	FISH + Molecular+IHC	FFPE Block (Preferably Tumor Area Marked)	FISH: ALK Translocation, ROS1 translocation, MET amplification Molecular: EGFR (exon (18-21) mutations by sequencing, IHC: PDL1	10
4	G10S05T03	Oncoinsights™ FISH Combipanel-2 NSCLC	FISH + Molecular+IHC	FFPE Block (Preferably Tumor Area Marked)	FISH: ALK Translocation, ROS1 translocation, MET amplification Molecular: EGFR (exon (18-21) mutations, KRAS (exon 2,3) mutations by sequencing, BRAF V600E mutation (ASO PCR), IHC: PDL1	10
5	G10S05T04	Non-Small cell lung cancer (ALK+EGFR)	FISH + Molecular	FFPE Block (Preferably Tumor Area Marked)	FISH: ALK Translocation, Molecular: EGFR (exon (18-21) mutations by sequencing.	6
6	G08S12T09	Non-Small cell lung cancer (EGFR+ KRAS)	Molecular	FFPE Block (Preferably Tumor Area Marked)	Molecular: EGFR (exon (18-21) mutations, KRAS (exon2,3) mutation by sequencing.	6
7	G08S14T02	56 Gene Test	NGS	FFPE Block	NGS: 56 Genes	15-20
8	G08S14T03	56 Gene Test - Liquid Biopsy	NGS	10 ml Peripheral Blood in Streck Tube (2 tubes)	NGS: 56 Genes	15-20
9	G08S15T06	NSCLC NGS Panel (FFPE)	NGS	FFPE Block (Preferably Tumor Area Marked)	NGS: HER2, PIK3CA, EGFR,BRAF, KRAS, Translocation: ALK, ROS1, RET, Copy Number Variation: MET,NTRK1,NTRK2, NTRK3	15
10	G08S15T10	NSCLC NGS Liquid Biopsy	NGS	10 ml Peripheral Blood in Streck Tube (2tubes)	NGS: ALK, BRAF, EGFR, ERBB2, KRAS, MAP2K1, MET, NRAS, PIK3CA, ROS1, and TP53	15

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

Non-small Cell Lung Cancer (NSCLC)

INDIVIDUAL MARKERS						
S.No.	Lilac Code	Panel Name	Methodology	Specimen Requirements	Tests/Markers	TAT/Working Days
11	G08S12T02	KRAS mutation testing	Molecular	FFPE Block	Molecular: KRAS (exon 2,3) mutation testing by Sanger Sequencing	6
12	G08S12T01	EGFR (exon 18-21) mutation testing	Molecular	FFPE Block	Molecular: EGFR (exon 18-21) mutation testing by Sanger sequencing	6
13	G10S06T01	PDL1 test by IHC (Roche Ventanna Platform)	IHC	FFPE Block	IHC: PDL1 (Roche Ventanna FDA Approved Platform)	10
14	G08S15T11	PDL1 test by IHC (DAKO Platform)	IHC	FFPE Block	IHC: PDL1 (DAKO Platform)	10
15	G09S16T02	ALK Translocation	FISH	FFPE Block	FISH: ALK Translocation	5
16	G09S16T03	ROS1 Translocation	FISH	FFPE Block	FISH: ROS1 Translocation	5
17	G09S16T05	MET Amplification	FISH	FFPE Block	FISH: MET Amplification	5
18	G09S37T06	MDM2 Amplification	FISH	FFPE Block	FISH: MDM2 Amplification	7
19	G08S12T03	EGFR (exon 18-21) mutation & PDL1 by IHC	Molecular + IHC	FFPE Block	Molecular: EGFR (exon 18-21) mutation testing by Sanger sequencing & IHC: PDL1	6
20	G08S12T04	c-KIT (ex 9,11,13,17) mutation sequencing	Molecular	FFPE Block	Molecular: c-KIT (ex 9,11,13,17) mutation sequencing	7
21	G08S12T05	Molecular test HCL (BRAFV600E mutation)	Molecular	FFPE Block	Molecular: BRAF V600E mutation (ASO-PCR)	6
22	G08S12T06	Liquid Biosy - EGFR sense test	ddPCR	10 ml Peripheral Blood in Streck Tube (2 tubes)	ddPCR: EGFR-Sense test (Del 19 & L858R)	10
23	G08S12T07	Liquid Biosy - EGFR resist test	ddPCR	10 ml Peripheral Blood in Streck Tube (2 tubes)	ddPCR: EGFR - Resist test (T790M)	10
24	G08S12T08	Liquid Biosy - EGFR Lung panel	ddPCR	10 ml Peripheral Blood in Streck Tube (2 tubes)	ddPCR: EGFR-Sense test (Del 19 & L858R) EGFR - Resist test(T790M)	10

■ FISH: FISH Studies
 ■ Molecular: Molecular Studies
 ■ IHC: IHC Studies
 ■ Flowcytometry: Flowcytometry Studies
 ■ ddPCR: ddPCR Studies
 ■ NGS: NGS Studies
 Collect specimen as per the test information. Note: All FFPE blocks – tumor area should be marked or H&E slides with tumor area marked should be provided.

COLLECTION AND TRANSPORTATION OF SPECIMENS FOR ONCOGENETICS STUDIES

Oncocytogenetics

Hematolymphoid Malignancies:

- Bone Marrow Aspirate (BMA) / Peripheral Blood (PB) is the recommended tissue for FISH. BMA is highly recommended for karyotyping test.
- In absence of BMA, PB is accepted for karyotyping provided PB contains $\geq 40\%$ blasts. Collect 3-5ml of bone marrow aspirate/5-8 ml of peripheral blood into a sterile Sodium heparin vacutainer (Green top).
- **In case of drytap bone marrow, we accept minimum 2 unmounted bone marrow smear slides for FISH analysis.**
- In Multiple myeloma FISH studies, 5-6ml of BMA is highly recommended for purification of plasma cells followed by FISH.
- Clinical history should include provisional diagnosis, Flow report, disease status whether at diagnosis, on treatment, primary AML, MDS, secondary/transformed AML, MDS.
- For chromosome breakage studies, 6-10ml of PB in sodium Heparin vacutainer is required for patient as well as for unrelated sex-, age –matched, non-alcoholic, non-smoker, healthy control.

Transportation:

BMA/PB/liquid specimens placed in zip-lock bag along with TRF which should be transported at room temp (RT) or with a cool pack in hot environment and should reach to service lab within 24-48 hrs after collection.

Solid Tumors:

- FFPE tissue block with marked tumor area along with H&E slide
- TRF should include detail clinical history with provisional diagnosis, histopathology, IHC details.

Transportation:

FFPE tissue block/s along with H & E slides are placed in zip-lock bag and transferred to the service laboratory at Room Temperature.

Bladder Cancer FISH: Urine specimen (20-40ml in a sterile plastic container)

Molecular Oncology

Hematolymphoid Malignancies:

Bone Marrow Aspirate (BMA) / Peripheral Blood is the recommended tissue. Collect 3-5ml of bone marrow aspirate/5ml of peripheral blood into a sterile EDTA vacutainer (Purple top). Collect 10 ml peripheral blood in case of monitoring BCR-ABL1 transcript copies when patient is on treatment.

Transportation:

BMA/PB/liquid specimens should be transported with a cool pack and should reach to service lab within 24-48 hrs after collection.

Solid Tumors:

- FFPE tissue block with marked tumor area along with H&E slide
- TRF should include detail clinical history with provisional diagnosis, histopathology, IHC details.

Transportation:

FFPE tissue block/s along with H & E slides are placed in zip-lock bag and transferred to the service laboratory at Room Temperature.

** TRF should be labelled with **biohazard tag** in case of infectious disease history.

Note:

Lilac Insights is continuously validating and introducing new tests, to check the availability of Oncogenetics tests that are not mentioned in the list, kindly contact Dr. Pratibha Kadam Amare, Chief-Cancer and Clinical Genetics (Contact: +91- 9869249494) or Dr. Hrishikesh Lele, Sr. Scientific Officer, Oncocytogenetics Lab (Contact: +91- 7045900435), Molecular Oncology staff (Contact: +91- ,) or Srinivas, Product Manager (+91-7045695164) Or LILAC INSIGHTS +91 22 41841438, 2241841448.

Management of Lilac Insights Private Limited has the right to discontinue or change the panel of any tests mentioned in the list or change prices without prior notification.

All the TAT is from the receipt of the sample in the Lab.

Oncoinsights are the panels created with vast experience of Dr. Pratibha Kadam Amare and latest guidelines (like NCCN, ELN, WHO, ASH & ASCO) updates in cancer genetics for better and accurate risk stratification of the disease.

List of Offerings from Lilac Insights

Cytogenetic Tests	Cytogenetic Tests	Molecular genetics
<i>Hematological Malignancies</i>	<i>Solid Tumors</i>	<i>Hematological Malignancies</i>
Chronic Myeloid Leukemia - Chronic Phase/Accelerated Phase/Blast Phase	Breast Cancer	Acute Myeloid Leukemia
Acute Myeloid Leukemia	Gastric Cancer	Chronic Myeloid Leukemia
Acute Promyelocytic Leukemias	Non-Small Cell Lung Cancer	Acute Promyelocytic Leukemia
Myelodysplastic Syndromes	Neuroblastoma	Acute Lymphoblastic Leukemia
Myeloproliferative Neoplasms	Brain Tumors	Myeloproliferative Neoplasms
Acute Lymphoblastic Leukemia(B-Cell/T-Cell)	Neurological Cancers	Myelodysplastic Syndromes
Chronic Lymphocytic Leukemia	Ewing Sarcoma	Early T Cell precursor - Acute Lymphoblastic Leukemia
Sex-mismatched Bone Marrow Transplant	Alveolar Rhabdomyosarcoma	Chronic Lymphocytic Leukemia
Chronic Eosinophilic Leukemia	Extraskeletal Myxoid Chondrosarcoma	Hairy Cell Leukemia
Ph1 Like B- Acute Lymphoblastic Leukemia	Infantile Fibrosarcoma	<i>Solid Tumors</i>
Multiple Myeloma on Purified Plasma Cells	Myxoid Liposarcoma	Non Small Cell Lung Cancer
Hairy cell Leukemia	Synovial sarcoma	Colorectal Cancer
Lymphoma FISH Panels	Bladder Cancer	Gastrointestinal Stromal Tumors
IGH Translocations		Melanoma
Mantle Cell Lymphoma		TP53 Deletion
Follicular Lymphoma		
Burkitt Lymphoma		
Diffuse large B-Cell Lymphoma		
Dual Hit Lymphoma(High Grade B-Cell Lymphoma)		
Triple Hit Lymphoma(High Grade B-Cell Lymphoma)		
MALT Lymphoma		
Lymphoma B-Cell		
Lymphoma T-Cell		
Hepatosplenic γ , δ T-cell Lymphoma		
	<p>For Further Details, contact us at: Dr. P. S. Kadam Amare: +91 9869 249 494 Mr. A B Srinivas - +91 7045 695 164 Tel: +91 22 41841438 Fax: +91 22 41841448</p>	



Advances in genetics will create a healthier tomorrow. With a continuous emphasis on innovation and technology, Lilac Insights shall keep contributing to progression of genetics in healthcare and research. We will remain customer-focused. We will keep reinventing our processes, develop skills and create opportunities for genetic professionals. We will not only improve access to advanced genetic solutions in India but also be seen as a collaborator of choice by global organizations, seeking quality genetic services at affordable costs.

Contact us:

LILAC INSIGHTS PVT. LTD

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