



Date packaged:

CSI Laboratories Use Only:

PLEASE CALL CSI CLIENT SERVICES AT (800) 459-1185 TO INQUIRE ABOUT TESTS NOT LISTED BELOW

FISH PANELS: FOR TECH-ONLY SERVICES, REFLEX OPTIONS MUST BE INITIATED BY THE SIGNING PATHOLOGIST												
AML - Panel 1 - [t(15;17)/PML-RARA] *IF NEGATIVE, REFLEX TO: t(8;21)/RUNX1T1-RUNX1, inv16/CBFB-Break apart, KMT2A(MLL)-Break apart *IF gain of RARA, REFLEX TO: RARA-Break apart												
AML - Panel 2 - [5q/EGR1, 7q/CEP7, CEP8, 20q, RB1-LAMP1, KMT2A(MLL)-Break apart, t(9;22)/BCR-ABL1] AML - Panel 3 - [5q/EGR1, 7q/CEP7, KMT2A(MLL)-Break apart, t(8;21)/RUNX1T1-RUNX1, inv16/CBFB-Break apart, t(9;22)/BCR-ABL1] *IF NEGATIVE, REFLEX TO: RB1-LAMP1, 20q, CEP8												
AML - Panel 4 - [t(8;21)/RUNX1T1-RUNX1, inv16/CBFB-Break apart, KMT2A(MLL)-Break apart] - global AML with monocytic differentiation - [inv16/CBFB-Break apart, KMT2A(MLL)-Break apart] - global B – ALL - [t(9;22)/BCR-ABL1, KMT2A(MLL)-Breakapart, t(12;21)/ETV6-RUNX1, CRLF2-Breakapart, CEP4/CEP10/CEP17] - global *IF NEGATIVE, REFLEX TO: [9p21/CDKN2A-CEP9, IGH- Breakapart , MYC-Breakapart] - global *IF gain of ETV6, REFLEX TO: [ETV6-Breakapart] - global												
Burkitt Only - [t(8;14)/IGH-MYC, MYC-Break apart] *IF GAIN of IGH, REFLEX: [t(14;18)/IGH-BCL2, BCL6-Break apart, BCL2-Break apart] *IF clinically indicated for MCL, REFLEX: [t(6;14)/CCND3-IGH, t(11;14)/CCND1-IGH, CCND1-Break apart, CCND2-Break apart]												
CLL/SLL + Mantle cell - [CLL1/(ATM/TP53), CLL2/(13q14.3/LAMP1/CEP12),IGH-Break apart, MYB-CEP6, RB1-LAMP1, t(11;14)/CCND1-IGH] *IF IGH Rearranged, REFLEX: t(14;18)/IGH-BCL2 *IF unresolved question of MCL, REFLEX: [t(6;14)/CCND3-IGH, CCND1-Break apart, CCND2-Break apart]												
CLL/SLL - [CLL1/(ATM/TP53), CLL2/(13q14.3/LAMP1/CEP12),IGH-Break apart, MYB-CEP6, RB1-LAMP1] *IF IGH Rearranged, REFLEX: [t(11;14)/CCND1-IGH] and/or [t(6;14)/CCND3-IGH, t(14;18)/IGH-BCL2,CCND2-Break apart] if indicated												
CML - [t(9;22)/BCR-ABL1] *IF POSITIVE, REFLEX: (BCR-ABL1(p210/p190) by RT-PCR												
Eosinophilia - [PDGFRA-Break apart, PDGFRB-Break apart, FGFR1-Break apart], JAK2-Break apart Follicular Center Lymphoma - [t(14;18)/IGH-BCL2, BCL6-Break apart, BCL2-Break apart] *IF GAIN IGH, REFLEX: [t(8;14)/IGH-MYC, MYC-Break apart] *IF question of MCL by Flow, REFLEX: [t(6;14)/CCND3-IGH, t(11;14)/CCND1-IGH, CCND1-Break apart, CCND2-Break apart]												
HGBL/Triple Hit - [t(8;14)/IGH-MYC, MYC-Break apart, t(14;18)/IGH-BCL2, BCL6-Break apart, BCL2-Break apart] *IF clinically indicated for MCL, REFLEX: [t(6;14)/CCND3-IGH, t(11;14)/CCND1-IGH, CCND1-Break apart, CCND2-Break apart]												
LPL/Waldenstrom [MYB-CEP6, IGH-Break apart] MALT Only - [MALT1-Break apart, BCL6-Break apart,t(11;18)/BIRC3-MALT1] *IF MALT1 rearranged, REFLEX TO: [t(14;18)/IGH-MALT1]												
Marginal Zone - [7q/CEP7, CEP12, BCL6-Break apart, MALT1-Break apart, IGH-Break apart, TP53/CEP17] *IF MALT1-Break apart rearranged, REFLEX TO: [t(11;18)/BIRC3-MALT1, t(14;18)/IGH-MALT1] *IF IGH-Break apart rearranged, REFLEX TO: [t(11;14)/CCND1-IGH, CCND1-Break apart, t(14;18)/IGH-BCL2] *IF unresolved question of MCL, REFLEX: [t(6;14)/CCND3-IGH, CCND2-Break apart]												
Mantle Cell - [t(11;14)/CCND1-IGH, CCND1-Break apart] *IF Negative and clinically indicated, REFLEX: [t(6;14)/CCND3-IGH, CCND2-Break apart]												
Mantle cell, Reflex CLL/SLL - [t(11;14)/CCND1-IGH,CCND1-Break apart] *IF NEGATIVE, REFLEX TO: [CLL/SLL Panel] *IF Negative and clinically indicated, REFLEX: [t(6;14)/CCND3-IGH, CCND2-Break apart]												
MDS - [5q/EGR1, 7q/CEP7, CEP8, 20q, RB1-LAMP1, KMT2A(MLL)-Break apart, TP53/CEP17]												
MPN - [t(9;22)/BCR-ABL1, 5q/EGR1, 7q/CEP7, CEP8, 9p21/CDKN2A-CEP9, 20q, RB1-LAMP1] MPN/Eosinophilia - [t(9;22)/BCR-ABL1, 4q12/PDGFRB-Break apart, PDGFRB-Break apart, FGFR1-Break apart], JAK2-Break apart												
Plasma Cell Myeloma - [1p/1q, RB1-LAMP1, IGH-Break apart, TP53/CEP17, t(11;14)/CCND1-IGH, CEP9/CEP11] *IF IGH is rearranged, but Negative for t(11;14)/CCND1-IGH; REFLEX TO: [t(4;14)/FGFR3-IGH, t(6;14)/CCND3-IGH, t(14;16)/IGH-MAF, t(14;20)/IGH-MAFB] *IF GAIN of CCND1, without GAIN of CEP11, REFLEX: [CCND1-Break apart]												
PML-RARA [t(15;17)]												
T-ALL - [t(9;22)/BCR-ABL1, (9p21)/CDKN2A-CEP9, KMT2A(MLL)-Break apart] *IF NEGATIVE, REFLEX TO: [1p33, t(5;14), t(10;11), 7q/CEP734, 14q11.2]												
T-PLL [TCL1 for inversion 14 and t(14;14); TRA for t(X;14)]												

HEMATOLOGY PROFILE AND LIQUID BIOPSY GENES TESTED FOR ABNORMALITIES												
ABL1	BCL2	CBL	CDKN2C	DICER1	FAS	IDH2	KMT2A	MPL	PAX5	PTCH1	SMAD2	TGFBR2
AKT1	BCL2L1	CBLB	CEBPA	DNMT3A	FBXW7	IGF1R	KMT2B	MRE11A	PBRM1	PTEN	SMAD4	TP53
AKT2	BCL6	CBLC	CHEK1	EP300	FLT3	IKZF1	KMT2C	MTOR	PDGFRA	PTPN11	SMARCA4	TSC1
AKT3	BCOR	CCND1	CHEK2	ERG	GATA1	IKZF3	KMT2D	MUTYH	PDGFRB	RAD21	SMARCB1	TSC2
ALK	BCORL1	CCND3	CIC	ETV6	GATA2	IRF4	KRAS	MYC	PHF6	RAD50	SMC1A	TSHR
AMER1	BCR	CD274	CREBBP	EZH2	GATA3	JAK1	MAP2K1	MYD88	PIK3CA	RAD51	SMO	WT1
APC	BIRC3	CD79A	CRLF2	FAM175A	GEN1	JAK2	MAP2K2	NFKBIA	PIK3R1	RB1	SOC3	ZNF217
ARID1A	BLM	CD79B	CSF1R	FAM46C	GNAQ	JAK3	MAP2K4	NOTCH1	PIK3R2	RHOA	SRC	ZRSR2
ARID1B	BRAF	CDH1	CSF3R	FANCA	GNAS	KAT6A	MAP3K1	NOTCH2	PIM1	RNF43	SRSF2	MEF2B
ARID2	BRCA1	CDK12	CTNNA1	FANCC	H3F3A	KDM5C	MAP3K14	NOTCH3	PLCG1	RUNX1	STAG2	
ASXL1	BRCA2	CDK4	CTNNB1	FANCD2	HNF1A	KDM6A	MAPK1	NPM1	POLD1	SDHB	STAT3	
ATM	BTK	CDK6	CUX1	FANCE	HOXB13	KDR	MCL1	NRAS	POLE	SETBP1	STK11	
ATRX	CALR	CDKN2A	CXCR4	FANCF	HSP90AA1	KEAP1	MDM2	NSD1	PPM1D	SETD2	TERT	
B2M	CARD11	CDKN2B	DDR2	FANCG	IDH1	KIT	MDM4	PALB2	PPP2R1A	SF3B1	TET2	
SPECIMEN REQUIREMENTS			SHIP SPECIMENS WITH COLD PACK									
Flow Cytometry	Peripheral Blood		3 mL in sodium heparin (green top)- preferred or 3 mL in EDTA (purple top)									
	Bone Marrow Aspirate		1-2 mL in sodium heparin (green top)- preferred or 1-2 mL in EDTA (purple top)									
	PNH Profile		3 mL peripheral blood in EDTA (purple top) preferred, should be processed within 24 hours of collection									
Cytogenetics	Peripheral Blood		5 mL in sodium heparin (green top)									
	Bone Marrow Aspirate		2-3 mL in sodium heparin (green top)									
FISH	Peripheral Blood		3 mL in sodium heparin (green top)- preferred or 3 mL in EDTA (purple top)									
	Bone Marrow Aspirate		2-3 mL in sodium heparin (green top)- preferred or 3 mL in EDTA (purple top)									
Molecular	Peripheral Blood		5-10 mL EDTA tube (purple top)- preferred; ACD (yellow top) acceptable									
	Bone Marrow Aspirate		1-2 mL in EDTA tube (purple top)- preferred; ACD (yellow top) acceptable									

ADDITIONAL INFORMATION FOR OPTIMAL ANALYSIS:

- Bone marrow smears should not be exposed to formalin vapors from open core/clot biopsy jars.
- Bone marrow smears should be completely air-dried (1-2 hours) prior to packaging in slide holders.
- Please label each specimen with patient name plus two (2) additional unique patient identifiers.
- Please include a copy of patient's most recent CBC and clinical history.
- In the event of a dry-tap, please send a second core specimen in RPMI transport media and 10 mL of peripheral blood in sodium heparin for other testing.