



Colorado Genetics Laboratory

www.coloradogeneticslab.com

FISH TEST LIST

Please remember to complete the
Cytogenetics Request form and attach it to this form.

Patient Name: _____

Oncology FISH Panels		
Disease Panels	Genes/ Loci	
Acute Lymphoblastic Leukemia (ALL)	4,10, ETV6/ RUNX1, CDKN2A, BCR/ ABL1, KMT2A (MLL); MYC (BAP)	
Acute Myelogenous Leukemia (AML)	5p/ 5q-, -7/ 7q-, PML/ RARA/ t(15;17), CBFβ (BAP), if positive reflex to CBFβ/ MYH11/ inv(16)/ t(16;16); RUNX1/ RUNX1 T1/ t(8;21), MECOM (EV11)/ inv(3)/ t(3;3); DEK/ NUP214/ t(6;9); KMT2A (MLL)/ 11q23 if positive reflex to t(9;11)/ MLLT3/ KMT2A	
Acute Promyelocytic Leukemia (APL)	PML/ RARA; RARA (BAP)	
Burkitt Lymphoma	MYC, MYC/ IGH	
Chronic Lymphocytic Leukemia (CLL)	ATM, +12, 13q14, TP53, IGH/ CCND1	
Eosinophilia	PDGFRA, PDGFRB, FGFR1, PCM1/ JAK2, CBFβ	
Ependymoma	1p36/ 1q25, EGFR, CDKN2A	
High Grade B-cell Lymphoma	BCL6, MYC, IGH/ MYC, BCL2	
Large Diffuse B-cell Lymphoma (DLBCL)	BCL6, MYC, IGH/ MYC, IGH/ BCL2, IGH (TP53 upon request)	
MALT Lymphoma	BCL6, BIRC3 (API2)/ MALT1, MALT1	
Marginal Zone Lymphoma	BCL6, 7cen/ 7q31, TP53	
Medulloblastoma	MYCN, MYC, 6q21 (SEC63)/ 6cen	
Multiple Myeloma (MM)	1p32/ 1q21,13q14, TP53, +5/ +9/ +15, IGH/ FGFR3, IGH/ CCND1, IGH/ MAF, IGH/ MAFB	
Myeloproliferative Neoplasm (MPN)	PDGFRA, PDGFRB, FGFR1, PCM1/ JAK2, BCR/ ABL1	
Myelodysplastic Syndrome (MDS)	5p/ 5q31, 7cen/ 7q31, 8cen, 20q12, KMT2A (MLL)	
Neuroblastoma	MYCN, 1p36, ATM (11q22.3)	
Ph-like B-ALL	CRLF2, ABL2, CSF1R, PDGFRB, JAK2, ABL1, EPOR	
T-Cell Receptor	TRG, TRB, TRA/ D	
Cholangiocarcinoma	3cen, 7cen, 17cen, 9p21	
Oncology FISH Probes		
FISH Probes	Chromosomes/ Loci	Disease
1p36 deletion	1p36.3	Neuroblastoma
1p36/ 19q13 deletion	1p36, 19q13	Oligodendroglioma
1q21 gain	1q21.3	Multiple myeloma
1q25 gain	1q25	Ependymoma
4 enumeration	4cen	ALL
5p/ 5q31	5p/ 5q31	AML, MDS
5/ 9/ 15 enumeration	5p15/ 9q22/ 15q22	Multiple myeloma
6/ 6q21 (SEC63)	6cen/ 6q21	Hematologic neoplasm
7/ 7q31	7cen/ 7q31	AML, MDS
8 enumeration	8cen	AML, MDS
10 enumeration	10cen	ALL
12 enumeration	12cen	CLL
13q14	13q14.3	CLL, Multiple myeloma
20q12	20q12	MDS
22 enumeration	22q11.2	Atypical teratoid/ rhabdoid tumor, ependymoma, meningioma
X/ Y	Xcen, Yq12	Sex mismatched transplant/ chimerism
ABL1	9q34.1	B-ALL
ABL2	1q25.2	B-ALL
ALK	2p23	Anaplastic large cell lymphoma, lung cancer
BIRC3 (API2)/ MALT1 t(11;18)	11q22.2, 18q21.32	MALT lymphoma
ATM	11q22.3	CLL
BCL2	18q21	B-Cell disorder
BCL6	3q27	Lymphoma, DLBCL
BCR/ ABL1 t(9;22)	9q34.1, 22q11.2	ALL, AML, CML
BCR/ ABL1/ ASS1 variant t(9;22)	9q34.11, 9q34.12, 22q11.2	CML
CBFB	16q22	AML
CBFB/ MYH11/ inv(16)/ t(16;16)	16q22; 16p13	AML
CDKN2A	9p21	ALL, brain tumor
CRLF2	Xp22.3 and Yp11.3	B-ALL
CSF1R	5q32-33.1	B-ALL
DDIT3 (CHOP)	12q13	Myxoid liposarcoma
DEK/ NUP214 t(6;9)	6p22.3, 9q34.3	AML
EGFR	7p12	Brain tumor
EPOR	19p13.2	B-ALL
ERBB2 (HER2)	17q12	Carcinoma
ETV6 (TEL)	12p13	ALL, AML
ETV6/ RUNX1 (TEL/ AML1) t(12;21)	12p13.2, 21q22.12	ALL
EW/SR1	22q11.2	Sarcoma
FGFR1	8p11.23	Eosinophilia, MPN
FOXO1	13q14.1	Rhabdomyosarcoma
FUS	16p11.2	Myxoid liposarcoma



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Please See Reverse Side

Patient Name: _____

Oncology FISH Probes Continued		
FISH Probe	Chromosome(s)	Disease
IGH	14q32.3	B-Cell disorder
IGH/ BCL2 t(14;18)	14q32.3, 18q21	B-Cell disorder
IGH/ CCND1 t(11;14)	11q13.3, 14q32.3	Mantle cell lymphoma, multiple myeloma
IGH/ CCND3 t(6;14)	6p21.1, 14q32.3	Multiple myeloma, DLBCL
IGH/ FGFR3 t(4;14)	4p16.3, 14q32.3	Lymphoma, multiple myeloma
IGH/ MAF t(14;16)	14q32.3, 16q23.2	Multiple myeloma
IGH/ MAFB t(14;20)	14q32.3, 20q12	Multiple myeloma
IGH/ MALT1 t(14;18)	14q32.3, 18q21	MALT lymphoma
IGH/ MYC t(8;14)	8q24, 14q32.3	Burkitt lymphoma, DLBCL
IGK	2p11.2	B-cell disorder
IGL	22q11	B-cell disorder
JAK2	9p24	B-ALL, myeloid neoplasms
KMT2A (MLL)	11q23	ALL, AML, MDS
MALT1	18q21	MALT lymphoma
MDM2	12q15	Sarcoma
MECOM (EVI1)	3q26.2	Hematologic neoplasm
MET	7q31	Lung cancer
MLL3/ KMT2A t(9;11)	9p21.3, 11q23	ALL, AML
MYC (translocation or enumeration)	8q24	Lymphoma, DLBCL, Brain tumor
MYCN	2p24.3	Neuroblastoma, meduloblastoma
PCM1/ JAK2 t(8;9)	8p22, 9p24.1	Eosinophilia, MPN
PDGFRA	4q12	Eosinophilia, MPN
PDGFRB	5q32	Eosinophilia, MPN, B-ALL
PML/ RARA t(15;17)	15q24.1, 17q21.2	APL
PTEN	10q23	Brain tumor
RB1	13q14	Retinoblastoma
RET	10q11.2	Lung cancer
ROS1	6q22.1	Lung cancer
RUNX1 (AML1)	21q22	ALL, AML
RUNX1/ RUNX1T1 (AML1/ ETO) t(8;21)	8q21.3, 21q22	AML
SS18 (SYT)	18q11	Synovial sarcoma
TCF3 (E2A)/ PBX1 t(1;19)	1q23.3, 19p13	ALL
TCL1A	14q32.2	PLL
TP53 17p13.1 deletion	17p13.1	Hematologic neoplasm and tumor
TRA/ D (TCRAD)	14q11	T cell disorder
TRB (TCRB)	7q34	T cell disorder
TRG (TCRG)	7p14	T cell disorder
Previous clone	<i>Specify:</i>	
Enumeration for individual chromosome	<i>Specify:</i>	

Genetics FISH Tests	
FISH Probes	Diseases/ conditions
5p15.2/ D5S2064	Cri-du-Chat syndrome
7q11.2/ ELN	Williams syndrome
15q11.2/ SNRPN	Prader-Willi / Angelman syndrome
22q11.2/ HIRA	DiGeorge syndrome
Xp22.31/ STS	X-Linked ichthyosis
Aneuploid Testing	Chromosomes/ Loci
Prenatal aneuploidy testing	X, Y, 13, 18, 21
Postnatal aneuploidy testing	X, Y, 13, 18, 21
Postnatal Gender Determination	X, Y, SRY/ Yp11.2
POC aneuploidy testing	X, Y, 13, 15, 16, 18, 21, 22

If you need an assay that is not listed here, please inquire