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), CBFB (BAP), if positive reflex to CBFB/MYH11/inv(16)/t(16;16); RUNX1/RUNX1T1/t(8;21), MECOM (EVI1)/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, CBFB
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	Oligodenroglioma
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
19q13 deletion	19q13	Oligodenroglioma
20q12	20q12	MDS
22 enumeration	22q11.2	Atypical teratoid/rhabdoid tumor, ependymoma, meningioma
X/Y	Xcen, Yq12	Sex mismatched tranplant/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
EWSR1	22q11.2	Sarcoma
FGFR1	8p11.23	Eosinophilia, MPN
FOXO1	13q14.1	Rhabdomyosarcoma
FUS	16p11.2	Myxoid liposarcoma
IGH	14q32.3	B-Cell disorder
IGH/BCL2 t(14;18)	14q32.3, 18q21	B-Cell disorder

Colorado Genetics Laboratory
www.coloradogeneticslab.com

FISH TEST LIST

Please See Reverse Side

Patient Name:_____

Oncology FISH Probes Continued		
FISH Probe	**Chromosome(s)**	**Disease**
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
MLLT3/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
PDGFB	22q13.1	Bone and soft tissue neoplasms
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
USP6	17p13.2	Bone and soft tissue neoplasms
Previous clone	*Specify:*	
Enumeration for individual chromosome	*Specify:*	

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