

# GENETIC TESTING

ONCOLOGY FISH TESTING SERVICES		ONCOLOGY FISH TESTING SERVICES	
TEST #	TEST NAME/DESCRIPTION	TEST #	TEST NAME/DESCRIPTION
Testing provided by the ARUP Cytogenetics Laboratory		Testing provided by the ARUP Immunohistochemistry Laboratory on paraffin-embedded tissue	
2002298	Chromosome FISH, Interphase	3001309	1p/19q Deletion by FISH
3002063	Multiple Myeloma Panel by FISH	3001302	ALK Gene Rearrangements by FISH, Lung
3002737	FISH, Interphase, CD138+ Cells (use for individual or select FISH probes associated with multiple myeloma)	3001495	Aggressive B-Cell Lymphoma Reflex Panel by FISH, Tissue
2002295	Chromosome FISH, CLL Panel	3001311	BCL6 (3q27) Gene Rearrangement by FISH
2002360	Myeloproliferative Disorders Panel by FISH	3001304	DDIT3 (CHOP) (12q13) Gene Rearrangement by FISH
2002363	PML-RARA Translocation by FISH	3001310	EGFR Gene Amplification by FISH
2002378	Eosinophilia Panel by FISH	2008603	ERBB2 (HER2/neu) Gene Amplification by FISH with Reflex
2011132	Acute Myeloid Leukemia Panel by FISH	3001305	EWSR1 (22q12) Gene Rearrangement by FISH
2002647	Acute Lymphoblastic Leukemia (ALL) Panel by FISH, Adult	3001297	FOXO1 (FKHR) (13q14) Gene Rearrangement by FISH
2002719	Acute Lymphoblastic Leukemia (ALL) Panel by FISH, Pediatric	3000548	FUS (16p11) Gene Rearrangement by FISH
2002650	Lymphoma (Aggressive) Panel by FISH	3001298	IGH-BCL2 Fusion, t(14;18) by FISH (for detection in follicular lymphoma)
2002653	AML with MDS or Therapy-Related AML by FISH	3001306	IGH-CCND1 Fusion, t(11;14) by FISH (for detection in mantle cell lymphoma)
2002709	Myelodysplastic Syndrome (MDS) Panel by FISH	3001299	IGH-MYC Fusion, t(8;14) by FISH (for detection in burkitt lymphoma)
2002298	*EWSR1 Break Apart Rearrangement by FISH	3001568	IRF4/DUSP22 (6p25) Gene Rearrangement by FISH
2002298	*SYT Rearrangement by FISH	3001301	MDM2 Gene Amplification by FISH
3000455	Ph-Like Acute Lymphoblastic Leukemia (ALL) Panel by FISH	3001313	MET Gene Amplification by FISH
Testing provided by the ARUP Cytopathology Laboratory		3001300	MYC (8q24) Gene Rearrangement by FISH
2002528	Pancreatobiliary FISH	3001307	MYCN (N-MYC) Gene Amplification by FISH
2001181	UroVysion FISH	3001312	RET Gene Rearrangements by FISH
		3001308	ROS1 by FISH
		3001303	SS18 (SYT) (18q11) Gene Rearrangement by FISH
		3002633	TFE3 Gene Rearrangement by FISH

\* FISH probes can be tested on touch prep samples.

Refer to the aliases under test code 2002298 on the Laboratory Test Directory on the ARUP website for a complete list of available probes: [ltd.aruplab.com/Tests/Pub/2002298](https://ltd.aruplab.com/Tests/Pub/2002298).

Refer to the aliases under test code 3002737 on the Laboratory Test Directory on the ARUP website for a complete list of available probes: [ltd.aruplab.com/Tests/Pub/3002737](https://ltd.aruplab.com/Tests/Pub/3002737).

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ONCOLOGY FISH PROBES			
TEST NAME/DESCRIPTION AND TEST #	PROBE TARGET	GENE(S)/UNIQUE SEQUENCE	
To order individual probes, use ARUP test code 2002298, Chromosome FISH, Interphase, and specify the desired probe(s).			
Testing provided by the ARUP Cytogenetics Laboratory			
Acute Lymphoblastic Leukemia (ALL) Panel	Adult: 2002647	8q24	MYC
		t(9;22)(q34;q11.2)	BCR-ABL1
		11q23	KMT2A (MLL)
		14q32	IGH
		19p13	TCF3 (E2A)
	Pediatric: 2002719	+4,+10	CEP4, CEP10
		t(9;22)(q34;q11.2)	BCR-ABL1
		11q23	KMT2A (MLL)
Acute Myeloid Leukemia Panel by FISH: 2011132	t(12;21)(p13;q22)	ETV6-RUNX1 (TEL-AML1)	
	t(15;17)(q24;q21)	PML-RARA	
	t(8;21)(q22;q22)	RUNX1T1-RUNX1 (ETO-AML1)	
	inv(16)(p13.3q22)	CBFB	
	11q23	KMT2A (MLL)	
	inv(3) or t(3;3)	RPN1/MECOM (EVI1)	
	del(5)(q31)	EGR1	
Acute Myelogenous Leukemia (AML) with Myelodysplastic Syndrome (MDS) or Therapy-Related AML, by FISH: 2002653	del(7)(q31)/-7	D7S486	
	del(5)(q31)	EGR1	
	11q23	KMT2A (MLL)	
Aggressive B-Cell Lymphoma Reflex Panel by FISH, Tissue: 3001495	8q24	MYC	
	t(14;18)	IGH-BCL2 Fusion	
	3q27	BCL6	
Chromosome FISH, CLL Panel: 2002295	del(11)(q22.3)	ATM	
	+12	D12Z3	
	del(13)(q14.3)	D13S319	
	del(17)(p13.1)	TP53 (p53)	
Chronic Myelogenous Leukemia (CML): 2002298	t(9;22)(q34;q11.2)	BCR-ABL1	
Eosinophilia Panel by FISH: 2002378	4q12	PDGFRA-CHIC2-FIP1L1	
	5q32	PDGFRB	
	8p12	FGFR1	
	inv(16)	CBFB	
Lymphoma (Aggressive) Panel by FISH: 2002650	3q27	BCL6	
	8q24	MYC	
	t(14;18)(q32;q21)	IGH-BCL2	

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ONCOLOGY FISH PROBES, continued			
TEST NAME/DESCRIPTION AND TEST #		PROBE TARGET	GENE(S)/UNIQUE SEQUENCE
To order individual probes, use ARUP test code 2002298, Chromosome FISH, Interphase, and specify the desired probe(s).			
Testing provided by the ARUP Cytogenetics Laboratory			
Lymphoma (probes ordered individually as test code 2002298)	Burkitt	8q24	<i>MYC</i>
	Diffuse large cell	3q27	<i>BCL6</i>
	Follicular	t(14;18)(q32;q21)	<i>IGH-BCL2</i>
	IgH rearrangement	14q32	<i>IGH</i>
	Mantle cell	t(11;14)(q13;q32)	<i>IGH-CCND1</i>
	MALT	18q21	<i>MALT1</i>
Multiple Myeloma Panel: 3002063		1q21	<i>CKS1B</i>
		t(4;14)(p16;q32)	<i>IGH-FGFR3</i>
		+9/9p	<i>JAK2</i>
		t(11;14)(q13;q32)	<i>IGH-CCND1</i>
		t(14;16)(q32;q23)	<i>IGH-MAF</i>
		t(14;20)(q32;q12)	<i>IGH-MAFB</i>
		del(17)(p13.1)	<i>TP53 (p53)</i>
Myelodysplastic Syndrome (MDS) Panel by FISH: 2002709		del(5)(q31)	<i>EGR1</i>
		del(7)(q31)/-7	D7S486
		+8	CEP8
		del(20)(q12)	D20S108
Myeloproliferative Disorders Panel by FISH: 2002360		4q12	<i>PDGFRA-CHIC2-FIP1L1</i>
		5q32	<i>PDGFRB</i>
		8p12	<i>FGFR1</i>
		t(9;22)(q34;q11.2)	<i>BCR-ABL1</i>
Ph-Like Acute Lymphoblastic Leukemia (ALL) Panel by FISH: 3000455		Xp22.33/Yp11.32	<i>CRLF2</i>
		9p24	<i>JAK2</i>
		19p13.2	<i>EPOR</i>
		5q32	<i>CSF1R</i>
		9q34.1	<i>ABL1</i>
		1q25.2	<i>ABL2</i>
		5q32	<i>PDGFRB</i>
Sarcoma: 2002298	Synovial	18q11.2	<i>SS18 (SYT)</i>
	Ewing	22q12.2	<i>EWSR1</i>
Myxoid Liposarcoma: 2002298		12q13	<i>DDIT3 (CHOP)</i>
Alveolar Rhabdomyosarcoma: 2002298		13q13	<i>FKHR (FOXO1)</i>