

## ONCOLOGY FISH TESTING SERVICES

TEST #	TEST NAME/DESCRIPTION
Testing provided by the ARUP Cytogenetics Laboratory	
2002298	Chromosome FISH, Interphase
2002294	Multiple Myeloma Panel by FISH
2002295	Chromosome FISH, CLL Panel
2002360	Myeloproliferative Disorders Panel by FISH
2002363	<i>PML-RARA</i> Translocation by FISH
2002378	Eosinophilia Panel by FISH
2011132	Acute Myelogenous Leukemia Panel by FISH
2002647	Acute Lymphocytic Leukemia Panel by FISH, Adult
2002719	Acute Lymphocytic Leukemia Panel by FISH, Pediatric
2002650	Lymphoma (Aggressive) Panel by FISH
2002653	AML with MDS or Therapy Related AML by FISH
2002709	Myelodysplastic Syndrome Panel by FISH
2002298	* <i>EWSR1</i> Break Apart Rearrangement by FISH
2002298	* <i>SYT</i> Rearrangement by FISH
3000455	Ph-Like Acute Lymphocytic Leukemia (ALL) Panel by FISH
Testing provided by the ARUP Cytopathology Laboratory	
2002528	Pancreatobiliary FISH
2001181	UroVysion FISH

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

TEST #	TEST NAME/DESCRIPTION
Testing provided by the ARUP Immunohistochemistry Laboratory on Paraffin-Embedded Tissue	
2008604	1p/19q Deletion by FISH
2006102	<i>ALK</i> Gene Rearrangements by FISH, Lung
2010107	<i>BCL6</i> (3q27) Gene Rearrangement by FISH
2007223	<i>DDIT3 (CHOP)</i> (12q13) Gene Rearrangement by FISH
2008605	<i>EGFR</i> Gene Amplification by FISH
2008603	<i>ERBB2 (HER-2/neu)</i> Gene Amplification by FISH with Reflex
2007225	<i>EWSR1</i> (22q12) Gene Rearrangement by FISH
2001497	<i>FOXO1 (FKHR)</i> (13q14) Gene Rearrangement by FISH
3000548	<i>FUS</i> (16p11) Gene Rearrangement by FISH
2001536	<i>IGH-BCL2</i> Fusion, t(14;18) by FISH for Detection in Follicular Lymphoma
2007226	<i>IGH-CCND1</i> Fusion, t(11;14) by FISH for Detection in Mantle Cell Lymphoma
2001538	<i>IGH-MYC</i> Fusion, t(8;14) by FISH for Detection in Burkitt Lymphoma
2003016	<i>MDM2</i> Gene Amplification by FISH
2002345	<i>MYC</i> (8q24) Gene Rearrangement by FISH
2007227	<i>MYCN (N-MYC)</i> Gene Amplification by FISH
2008418	<i>ROS1</i> by FISH
2007222	<i>SS18 (SYT)</i> (18q11) Rearrangement by FISH

Refer to the aliases under test code 2002298 on the Laboratory Test Directory on the ARUP website for a complete list of available probes. <http://ltd.aruplab.com/Tests/Pub/2002298>

**ONCOLOGY FISH**

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			
FISH PROBES AVAILABLE FOR ONCOLOGY SAMPLES			
Indication		Probe Target	Gene(s)/Unique Sequence
Acute Lymphocytic Leukemia Panel (ALL)	Adult: 2002647	8q24	<i>MYC</i>
		t(9;22)(q34;q11.2)	<i>BCR-ABL1</i>
		11q23	<i>KMT2A (MLL)</i>
		14q32	<i>IGH</i>
	Pediatric: 2002719	19p13	<i>TCF3 (E2A)</i>
		+4,+10	CEP4, CEP10
		t(9;22)(q34;q11.2)	<i>BCR-ABL1</i>
		11q23	<i>KMT2A (MLL)</i>
Acute Myelogenous Leukemia Panel (AML): 2011132	t(12;21)(p13;q22)	<i>ETV6-RUNX1 (TEL-AML1)</i>	
	t(15;17)(q24;q21)	<i>PML-RARA</i>	
	t(8;21)(q22;q22)	<i>RUNX1T1-RUNX1 (ETO-AML1)</i>	
	inv(16)(p13.3q22)	<i>CBFB</i>	
	11q23	<i>KMT2A (MLL)</i>	
	inv(3) or t(3;3)	<i>RPN1/MECOM (EV17)</i>	
	del(5)(q31)	<i>EGR1</i>	
Acute Myelogenous Leukemia with Myelodysplastic Syndrome or Therapy-Related AML Panel: 2002653	del(7)(q31)/-7	D7S486	
	del(5)(q31)	<i>EGR1</i>	
	del(7)(q31)/-7	D7S486	
Chronic Lymphocytic Leukemia Panel (CLL): 2002295	11q23	<i>KMT2A (MLL)</i>	
	del(11)(q22.3)	<i>ATM</i>	
	+12	D12Z3	
	del(13)(q14.3)	D13S319	
Chronic Myelogenous Leukemia (CML): 2002298	del(17)(p13.1)	<i>TP53 (p53)</i>	
	t(9;22)(q34;q11.2)	<i>BCR-ABL1, ASS1</i>	
Eosinophilia Panel: 2002378	4q12	<i>PDGFRA-CHIC2-FIP1L1</i>	
	5q33.1	<i>PDGFRB</i>	
	8p12	<i>FGFR1</i>	
	inv(16)	<i>CBFB</i>	
Lymphoma (Aggressive) Panel: 2002650	3q27	<i>BCL6</i>	
	8q24	<i>MYC</i>	
	t(14;18)(q32;q21)	<i>IGH-BCL2</i>	

<b>ONCOLOGY FISH</b> continued			
Testing provided by the ARUP Cytogenetics Laboratory			
FISH PROBES AVAILABLE FOR ONCOLOGY SAMPLES			
<b>Indication</b>		<b>Probe Target</b>	<b>Gene(s)/Unique Sequence</b>
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: 2002294		1q21	<i>CKS1B</i>
		+9	<i>ASS1</i>
		t(11;14)(q13;q32)	<i>IGH-CCND1</i>
		14q32	<i>IGH</i> rearrangement
		+15	<i>PML</i>
		del(17)(p13.1)	<i>TP53 (p53)</i>
		NOTE: If IGH is positive, additional testing will include:	
		t(4;14)(p16;q32)	<i>IGH-FGFR3</i>
t(14;16)(q32;q23.1)	<i>IGH-MAF</i>		
Myelodysplastic Syndrome Panel (MDS): 2002709		del(5)(q31)	<i>EGR1</i>
		del(7)(q31)/-7	D7S486
		+8	CEP8
		del(20)(q12)	D20S108
Myeloproliferative Disorder Panel (MPD): 2002360		4q12	<i>PDGFRA-CHIC2-FIP1L1</i>
		5q33.1	<i>PDGFRB</i>
		8p12	<i>FGFR1</i>
		t(9;22)(q34;q11.2)	<i>BCR-ABL1</i>
Ph-Like Acute Lymphocytic Leukemia (ALL) Panel: 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>
		5q33.1	<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>