

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 | |
| 3001309 | 1p/19q Deletion by FISH |
| 3001302 | <i>ALK</i> Gene Rearrangements by FISH, Lung |
| 3001311 | <i>BCL6</i> (3q27) Gene Rearrangement by FISH |
| 3001304 | <i>DDIT3 (CHOP)</i> (12q13) Gene Rearrangement by FISH |
| 3001310 | <i>EGFR</i> Gene Amplification by FISH |
| 2008603 | <i>ERBB2 (HER-2/neu)</i> Gene Amplification by FISH with Reflex |
| 3001305 | <i>EWSR1</i> (22q12) Gene Rearrangement by FISH |
| 3001297 | <i>FOXO1 (FKHR)</i> (13q14) Gene Rearrangement by FISH |
| 3000548 | <i>FUS</i> (16p11) Gene Rearrangement by FISH |
| 3001298 | <i>IGH-BCL2</i> Fusion, t(14;18) by FISH for Detection in Follicular Lymphoma |
| 3001306 | <i>IGH-CCND1</i> Fusion, t(11;14) by FISH for Detection in Mantle Cell Lymphoma |
| 3001299 | <i>IGH-MYC</i> Fusion, t(8;14) by FISH for Detection in Burkitt Lymphoma |
| 3001568 | <i>RF4/DUSP22</i> (6p25) Gene Rearrangement by FISH |
| 3001301 | <i>MDM2</i> Gene Amplification by FISH |
| 3001313 | <i>MET</i> Gene Amplification by FISH |
| 3001300 | <i>MYC</i> (8q24) Gene Rearrangement by FISH |
| 3001307 | <i>MYCN (N-MYC)</i> Gene Amplification by FISH |
| 3001312 | <i>RET</i> Gene Rearrangements by FISH |
| 3001308 | <i>ROS1</i> by FISH |
| 3001303 | <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 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 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(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> | |
| | del(7)(q31)/-7 | D7S486 | |
| Acute Myelogenous Leukemia with Myelodysplastic Syndrome or Therapy-Related AML Panel: 2002653 | del(5)(q31) | <i>EGR1</i> | |
| | del(7)(q31)/-7 | D7S486 | |
| | 11q23 | <i>KMT2A (MLL)</i> | |
| Chronic Lymphocytic Leukemia Panel (CLL): 2002295 | del(11)(q22.3) | <i>ATM</i> | |
| | +12 | D12Z3 | |
| | del(13)(q14.3) | D13S319 | |
| | del(17)(p13.1) | <i>TP53 (p53)</i> | |
| Chronic Myelogenous Leukemia (CML): 2002298 | t(9;22)(q34;q11.2) | <i>BCR-ABL1, ASS1</i> | |
| Eosinophilia Panel: 2002378 | 4q12 | <i>PDGFRA-CHIC2-FIP1L1</i> | |
| | 5q32 | <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> | |

| 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: 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> |
| | | 5q32 | <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> |
| | | 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> |