

PATIENT INFORMATION (PLEASE PRINT IN BLACK INK)
CLIENT INFORMATION
ORDERING PHYSICIAN CONTACT
SPECIMEN INFORMATION
COMPREHENSIVE SERVICES
INDIVIDUAL DIAGNOSTIC TESTS
MOLECULAR TESTING

NEXT-GENERATION SEQUENCING (NGS) PANELS & INTENDED USE

Please order **only one** NGS panel at a time. For a full list of interrogated genes, please refer to the Test Directory on clevelandcliniclabs.com.

| Panel Name | Order Code, (Specimen Type) | Intended Use | Gene Number (Variants Type) | Variants Detected |
|-----------------------------|--|--|-------------------------------------|--|
| Acute Leukemia | HDMNGS (M) HDPNGS (PB) HDONGS (O) | Known or suspected Acute Leukemias (e.g. Acute Lymphoblastic Leukemia – ALL, Acute Myeloid Leukemia – AML, Acute Promyelocytic Leukemia – APL) | 63 (DNA) 107 (RNA) | DNA: SNVs, Insertions, Deletions RNA: Gene fusions, Structural Variants |
| SUBPANELS | | | | |
| Chronic Myeloid | MYNGSM (M) MYNGSP (PB) MYNGSO (O) | Known or suspected Chronic Myeloid Neoplasms (e.g. MPNs, MDS) | 56 (DNA) | DNA: SNVs, Insertions, Deletions |
| MPN | MPNM (M) MPNP (PB) | Known or suspected Myeloproliferative Neoplasms (MPNs) – includes <i>JAK2</i> , <i>CALR</i> , <i>MPL</i> | 3 (DNA) | DNA: SNVs, Insertions, Deletions |
| Hematologic Neoplasm Fusion | HFMNGS (M) HFPNGS (PB) HFONGS (O) | Fusion-Only Targeted Analysis (e.g. myeloid and lymphoid neoplasms with eosinophilia and abnormalities of <i>PDGFRA</i> , <i>PDGFRB</i> or <i>FGFR1</i> ; <i>BCR-ABL1</i> -negative CML); or, ALLs with insufficient specimen for combined DNA & RNA NGS testing | 107 (RNA) | RNA: Gene fusions, Structural Variants |

(M) = Marrow (PB) = Peripheral Blood (O) = Other: FFPE, Clot sections

SNV = Single Nucleotide Variant(s)

FLUORESCENCE IN SITU HYBRIDIZATION (FISH) PANELS

| Panel Name | Probes | Blood Order Code | Bone Marrow Order Code | Tissue Order Code |
|---|---|------------------|------------------------|-------------------|
| FISH for Acute Myeloid Leukemia | t(15;17), t(8;21), inv(16), KMT2A (MLL) | FAMLPN | FAMLPM | |
| FISH for Aggressive B-Cell Lymphoma | BCL2 (18q21), BCL6 (3q27), c-MYC (8q24) and (8;14)(q24;q32) | FABCFP | FABCBM | FABCEL |
| Anaplastic Large Cell Lymphoma Panel | TP63, DUSP22/IRF4 | | | DUIRFH |
| FISH for B Lymphoblastic Leukemia (B-ALL) | t(9;22), KMT2A (MLL), t(12;21), 4/10 cen, CRLF2, CRLF2/IGH | FSHBLL | FSBLLM | |
| FISH for Chronic Lymphocytic Leukemia | 17p13 (TP53), 11q22 (ATM), 12 cen, 13q34 (D13S319, LAMP1), 11;14 (IgH/CCND1) | CLLFSH | CLLFSM | |
| FISH for Myelodysplastic Syndrome | 5q31 (EGR1), 7q31 (D7S486), 8 cen, 20q12 (D20S108) | FSHMDS | FSMDSM | |
| FISH for Myeloma* | 13q, 17p, 1p/1q, CEP9/CEP15, IgH, IgH/CCND1 (11;14) <i>If an IgH translocation is present that is not IgH/CCND1, then will reflex to IgH/MMSET (4;14) and IgH/MAF (14;16).</i> | | FSHPCM | |
| FISH for Myeloproliferative Neoplasms | t(9;22), 4q12 (PDGFRA), 5q33 (PDGFRB), 8p12 (FGFR1) | MPNFSH | MPNFSM | |

*Plasma cells only

FISH PROBES (For a full list of FISH probes, please refer to the Test Directory on clevelandcliniclabs.com)

| Test Name | Gene(s) | Location | Blood Order Code | Bone Marrow Order Code | Tissue Order Code |
|-------------------------------------|---------------------------------|------------------------------|------------------|------------------------|-------------------|
| FISH for BCL2 | <i>BCL2</i> | 18q21 | BCL2FH | BCL2FM | BCL2FT |
| FISH for BCL6 | <i>BCL6</i> | 3q27 | BCL6FH | BCL6FM | BCL6FT |
| FISH for BCR/ABL1 | <i>BCR/ABL1</i> | t(9;22) | BCRFSH | BCRFSM | |
| FISH for BIRC3/MALT1 | <i>BIRC3/MALT1 (API2/MALT1)</i> | t(11;18) | | | T1118 |
| FISH for CBFB/MYH11 | <i>CBFB</i> | inv(16) | INV16F | INV16M | |
| FISH for CCND1 | <i>CCND1</i> | 11q13 | CCND1F | CCND1M | CCND1T |
| FISH for CRLF2 Rearrangement | <i>CRLF2</i> | Xp22.33/Yp11.32 | CRLF2B | CRLF2M | |
| FISH for IGH::CRLF2 Rearrangement | <i>CRLF2, IGH</i> | Xp22.33/Yp11.32 and 14q32.33 | CRIGHB | CRIGHM | |
| FISH for del (5q) | <i>EGR1</i> | 5q31 | 5QFSH | 5QFSBM | |
| FISH for del (7q) | <i>D7S486</i> | 7q31 | FISH7Q | FSH7QM | |
| FISH for DUSP22/IRF4 | <i>DUSP22/IRF4</i> | 6p25.3 | | | DUIRFH |
| FISH for ETV6/RUNX1 | <i>ETV6/RUNX1 (TEL/AML1)</i> | t(12;21) | 1221FH | 1221FM | |
| FISH for FGFR1 | <i>FGFR1</i> | 8p12 | FGFR1F | FGFR1M | |
| FISH for IGH/BCL2 | <i>IGH/BCL2</i> | t(14;18) | FSHFCL | FSFCLM | T1418 |
| FISH for IGH/CCND1 | <i>IGH/CCND1</i> | t(11;14) | FSHMCL | FSMCLM | T1114 |
| FISH for IGH/MYC/CEP8 | <i>IGH/MYC</i> | t(8;14) | 814FSH | 814FSM | T814 |
| FISH for MALT1 | <i>MALT1</i> | 18q21 | | | MALT1 |
| FISH for MLL | <i>MLL</i> | 11q23 | MLLFSH | MLLFBM | |
| FISH for MYC(8q24) | <i>MYC</i> | 8q24 | MYCFSH | MYCFSM | MYC |
| FISH for PDGFRA | <i>PDGFRA</i> | 4q12 | PDGFRA | PGFRAM | |
| FISH for PDGRRB | <i>PDGRRB</i> | 5q33 | PDGFRB | PDGFBM | |
| FISH for PML/RARA | <i>PML/RARA</i> | t(15;17) | APLFSH | APLFBM | |
| FISH for RARA | <i>RARA</i> | 17q21 | RARFSH | RARFSM | |
| FISH for 8;21 Translocation for AML | <i>RUNX1/RUNX1T1 (AML1/ETO)</i> | t(8;21) | AMLFSH | AMLFBM | |
| FISH for Trisomy 4, 10 | Trisomy 4/10 | 4 cen, 10 cen | FHT410 | FT410M | |
| FISH for Trisomy 8, del(20q) | Trisomy 8/D20S108 | 8 cen, 20q12 | 20Q8FH | 20Q8BM | |
| FISH for TP63 | <i>TP63</i> | 3q28 | | | TP63FH |