Please fill out patient data clearly in block letters

Family name

First name

Date of Birth

☐

Id. No.

Physician

☐ male
☐ female

BIOSCIENTIA INTERNATIONAL

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Barcode

Fluorescence in-situ hybridization (FISH) Hematological Diagnostics

Clinical data

Specimen (immediate shipping at room temperature)

☐ Peripheral Blood (PB)
☐ Bone Marrow (BM)
☐ Slides harvested material

No. of tubes sent

No. of slides sent

Sampling date

Time

Please choose and mark the requested peobes for the above mentioned patient.

Acute Myeloid Leukemia(AML)

- ☐ Diagnostic AML panel (RUNX1T1::RUNX1 t(8;21)(q22;q22), BCR::ABL1 t(9;22)(q34;q11.2), PML::RARA t(15;17)(q24.1;q21.1), CBFß::MYH11 inv(16)(p13q22)/t(16;16)(p13;q22))
- ☐ Prognostic AML panel (RPN1::MECOM t(3;3)(q21.3;q26.2)/inv(3)(q21.3q26.2), EGR1/RPS14 deletion 5q/monosomy 5, DEK::NUP214 t(6;9)(p22;q34), KMT2E/D7S522/MET deletion 7q/monosomy 7, KMT2A(MLL)::MLLT3(AF9) t(9;11)(p21.3;q23.3), KMT2A(MLL) t(11q23), TP53/ATM deletion 17p13/i(17q))
- ☐ BCR::ABL1 t(9;22)(q34;q11.2)
- ☐ CBFß::MYH11 inv(16)(p13q22)/t(16;16)(p13;q22)
- ☐ D20S108 (20q12), RH74808 (20q13.3), D8Z2 (deletion 20q, trisomy 8)
- ☐ DEK::NUP214 t(6;9)(p22;q34)
- ☐ EGR1 (5q31), RPS14 (5q33) with control in 5p15 (deletion 5q/monosomy 5)
- ☐ KMT2A(MLL) t(11q23)
- ☐ KMT2A(MLL)::AFDN(MLLT4) t(6;11)(q27;q23.3)
- ☐ KMT2A(MLL)::MLLT3(AF9) t(9;11)(p21.3;q23.3)
- ☐ KMT2A(MLL)::MLLT1(ENL) t(11;19)(q23.3;p13.3)
- ☐ KMT2E (7q22), D7S522/MET (7q31.2) with control D7Z1 (deletion 7q/monosomy 7)
- ☐ NUP98 t(11p15.4)
- ☐ PML::RARA t(15;17)(q24.1;q21.1)
- ☐ RPN1::MECOM t(3;3)(q21.3;q26.2)/inv(3)(q21.3q26.2)
- ☐ RUNX1T1::RUNX1 t(8;21)(q22;q22)
- ☐ TP53 (17p13) in combination with ATM (11q22) (deletion 17p13/11q22)

☐ Others: _____

Chronic Myeloid Leukemia (CML)

- ☐ BCR::ABL1 t(9;22)(q34;q11.2)
- ☐ TP53 (17p13.1) in combination with ATM (11q22.3) (deletion 17p/i(17q))

☐ Others: _____

Myelodysplastic Neoplasia (MDS)

Because chromosome analysis is the standard procedure to provide important diagnostic and prognostic information for MDS, we perform FISH analysis only if chromosome analysis is not sufficient.

- ☐ Complete MDS panel (RPN1::MECOM t(3;3)(q21.3;q26.2)/inv(3)(q26.2), EGR1/RPS14 deletion 5q/monosomy 5, KMT2E/D7S522/MET deletion 7q/monosomy 7, D20S108/D8Z2 deletion 20q/trisomy 8, TP53/ATM deletion 17p13/i(17q))
- ☐ D20S108 (20q12), RH74808 (20q13.3), D8Z2 (deletion 20q, trisomy 8)
- ☐ EGR1 (5q31), RPS14 (5q33) with control in 5p15 (deletion 5q/monosomy 5)
- ☐ KMT2E (7q22), D7S522/MET (7q31.2) with control D7Z1 (deletion 7q/monosomy 7)
- ☐ RPN1::MECOM t(3;3)(q21.3;q26.2)/inv(3)(q21.3q26.2)
- ☐ TP53 (17p13) in combination with ATM (11q22) (deletion 17p13/i(17q), deletion 11q22)

☐ Others: _____

Chronic Myeloproliferative Neoplasias (MPN) / Chronic Myelomonocytic Leukemia (CMML) / Chronic Eosinophilic Leukemia (CEL) / Hypereosinophilic Syndrome (HES)

- ☐ BCR::ABL1 t(9;22)(q34;q11.2)
- ☐ ETV6::RUNX1 (deletion 12p/ETV6-rearrangement)
- ☐ D20S108 (20q12), RH74808 (20q13.3), D8Z2 (deletion 20q/trisomy 8)
- ☐ FGFR1 t(8p11)
- ☐ JAK2 t(9p24)
- ☐ KMT2E (7q22), D7S522/MET (7q31.2) with control D7Z1 (deletion 7q/monosomy 7)
- ☐ PCM1::JAK2 t(8;9)(p22;q24)
- ☐ PDGFRA/CHIC2/FIP1L1 (deletion 4q12, FIP1L1-::PDGFR-rearrangement)
- ☐ PDGFRB t(5q32)
- ☐ TP53 (17p13) in combination with ATM (11q22) (deletion 17p13/i(17q), deletion 11q22)

☐ Others: _____

Chronic Lymphocytic Leukemia (B-CLL) / Small Lymphocytic Lymphoma (SLL) /

- ☐ Complete B-CLL/SLL panel (D6S1594/MYB deletion 6q, ATM/TP53 deletion 11q22/deletion 17p13, D12Z3/DLEU1/LAMP1 trisomy 12/ deletion 13q14/deletion 13q, IGH-rearrangement t(14q32))
- ☐ ATM (11q22) and TP53 (17p13) (deletion 11q22, deletion 17p13)
- ☐ BCL3 t(19q13)
- ☐ CCND1::IGH t(11;14)(q13;q32)
- ☐ Centromere 12 (D12Z3), DLEU1 (13q14), LAMP1 (13q34) (trisomy 12, deletion 13q14, deletion 13q)
- ☐ IGH t(14q32)
- ☐ IGH::BCL2 t(14;18)(q32;q21)/trisomy 18
- ☐ MYB (6q23) with controls in 6q21 (D6S1594) and D6Z1 (deletion 6q)
- ☐ Others: _____

Non-Hodgkin-Lymphoma (NHL), B-Cell-Lymphoma Lymphoplasmacytic Lymphoma / Waldenstrom Macroglobulinemia

- ☐ Complete NHL panel (D6S1594/MYB deletion 6q, ATM/TP53 deletion 11q22/deletion 17p13, D12Z3/DLEU1/LAMP1 trisomy 12/ deletion 13q14/deletion 13q, IGH-rearrangement t(14q32))
- ☐ ALK t(2p23) in ALK+ DLBCL
- ☐ ATM (11q22) and TP53 (17p13) (deletion 11q22, deletion 17p13)
- ☐ BCL3 t(19q13)
- ☐ BCL6 t(3q27)/gain 3q
- ☐ CCND1::IGH t(11;14)(q13;q32)
- ☐ CCND3::IGH t(6;14)(p21;q32)
- ☐ Centromere 12 (D12Z3), DLEU1 (13q14), LAMP1 (13q34) (trisomy 12, deletion 13q14, deletion 13q)
- ☐ IGH t(14q32)
- ☐ IGH::BCL2 t(14;18)(q32;q21)/gain 18q
- ☐ MALT1 t(18q21)
- ☐ MYB (6q23) with controls in 6q21 (D6S1594) and D6Z1 (deletion 6q)
- ☐ MYC t(8q24)/gain 8q24
- ☐ MYC::IGH t(8;14)(q24;q32)
- ☐ Others: _____

T-Cell-Lymphoma (T-NHL)

- ☐ ATM (11q22) and TP53 (17p13) (deletion 11q22, deletion 17p13)
- ☐ ETV6::RUNX1 (deletion 12p)
- ☐ MYC t(8q24)/gain 8q24
- ☐ TCRα/δ t(14q11)
- ☐ Others: _____

Plasma Cell Myeloma / Multiple Myeloma / MGUS

For FISH analysis, "magnetic activated cell sorting" (MACS) will be initially performed to isolate CD138+ plasma cells.

Cave: In the diagnostic process for plasma cell diseases, FISH analysis is recommended as the gold standard, so a chromosome analysis will not be performed.

- ☐ Complete plasma cell neoplasia panel (CDKN2C/CKS1B deletion 1p32.3/amplification 1q21, ATM/TP53 deletion/gain 11q22/deletion 17p13, FGFR3::IGH t(4;14)(p16;q32), IGH::MAF t(14;16)(q32;q23), IGH::MAFB t(14;20)(q32;q12))
- ☐ ATM (11q22) and TP53 (17p13) (deletion/gain 11q22, deletion 17p13)
- ☐ CDKN2C (1p32.2), CKS1B (1q21) (deletion 1p32.3/amplification 1q21)
- ☐ FGFR3::IGH t(4;14)(p16;q32)
- ☐ IGH::MAF t(14;16)(q32;q23)
- ☐ IGH::MAFB t(14;20)(q32;q12)
- ☐ MYC t(8q24)
- ☐ MYC::IGH t(8;14)(q24;q32)
- ☐ Others: _____

Acute Lymphoblastic Leukemia / B-Cell Acute Lymphoblastic Leukemia (B-ALL)

- ☐ Aneuploidies of the chromosomes 4 (D4Z1), 10 (D10Z1), 17 (D17Z1)
- ☐ BCR::ABL1 t(9;22)(q34;q11.2)
- ☐ CDKN2A (p16, 9p21) with control CEP9 (deletion 9p)
- ☐ ETV6::RUNX1 t(12;21)(p13;q22), deletion 12p/amplification RUNX1
- ☐ IGH t(14q32)
- ☐ KMT2A(MLL) t(11q23)
- ☐ KMT2A(MLL)::AFF1(AF4) t(4;11)(q21.3-q22.1;q23.3)
- ☐ KMT2A(MLL)::AFDN(MLLT4) t(6;11)(q27;q23.3)
- ☐ KMT2A(MLL)::MLLT1(ENL) t(11;19)(q23.3;p13.3)
- ☐ MYC t(8q24)
- ☐ MYC::IGH t(8;14)(q24;q32)
- ☐ TCF3::PBX1 t(1;19)(q23;p13.3) with HLF (17q22)
- ☐ Others: _____

T-Cell Acute Lymphoblastic Leukemia (T-ALL)

- ☐ BCR::ABL1 t(9;22)(q34;q11.2)
- ☐ CDKN2A (p16, 9p21) with control CEP9 (deletion 9p)
- ☐ KMT2A(MLL) t(11q23)
- ☐ TCRα/δ t(14q11)
- ☐ Others: _____

Severe Aplastic Anemia (AA)

- ☐ Centromere 12 (D12Z3), DLEU (13q14), LAMP1 (13q34) (trisomy 12, deletion 13q14, deletion 13q)
- ☐ D20S108 (20q12), RH74808 (20q13.3), D8Z2 (deletion 20q, trisomy 8)
- ☐ EGR1 (5q31), RPS14 (5q33) with control in 5p15 (deletion 5q/ monosomy 5)
- ☐ KMT2E (7q22), D7S522/MET (7q31.2) with control D7Z1 (deletion 7q/ monosomy 7)
- ☐ Others: _____

Chromosome X- and Y-specific FISH after BMT

- ☐ Chromosome X- and Y-specific probes (DXZ1, DYZ3)
- ☐ Others: _____

Other Probes (on request)

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