INTERDISCIPLINARY BLOOD CANCER DIAGNOSTICS

Please fill out patient data clearly in block letters

Family name

First name

Day Month Year

Id. No.

Physician

☐ male
☐ female

BIOSCIENTIA INTERNATIONAL

Konrad-Adenauer-Straße 17 | D-55218 Ingelheim | Phone +49 6132 781-240 |
Fax +49 6132 781-236 | int.support@bioscientia.com | www.bioscientia.com

Barcode

Client data

SPECIMEN (IMMEDIATE SHIPPING AT ROOM TEMPERATURE)

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

No. of tubes sent

No. of slides sent

Sampling date

Time

ANALYSIS	VOLUME (ml)	ANTICOAGULATION
☐ **Immunophenotyping and microscopy** (Please provide 2-4 unstained slides additionally)	2	EDTA
☐ **Fluorescence in-situ hybridization (FISH)**	2–3	Heparin
☐ **Chromosome analysis (Cytogenetics)**	5–7	Heparin
☐ **Molecular genetic analysis**	2 x 4	EDTA

INDICATION

☐ Non-Hodgkin's Lymphoma ☐ B-NHL ☐ T-NHL
☐ MGUS/Multiple Myeloma
(For FISH analysis, "magnetic activated cell sorting" (MACS) will be initially performed to isolate CD138+ plasma cells)

☐ Acute Leukemia: ☐ AML ☐ B-ALL ☐ T-ALL
☐ MDS ☐ CML ☐ MPN ☐ PNH (PB only) ☐ Mastocytosis

CLINICAL FINDINGS, REQUEST AND THERAPY (MANDATORY)

Informed patient consent (for research purposes)

I hereby give consent for fully de-identified leftover material of my specimens to be stored or used for the purposes of research in accordance with the EU General Data Protection Regulation. I have been informed that I can revoke this consent at any time in the future without giving any reasons.

Place, Date Signature of patient or the patient's legal representative

If you have any questions please do not hesitate to contact us: +49 6132 781-240
A list of our FISH probes can be found on the back.

FLUORESCENCE IN-SITU HYBRIDIZATION (FISH) HEMATOLOGICAL DIAGNOSTICS

Please choose and mark the requested probes.

Acute Myeloid Leukemia (AML)

- ☐ BCR/ABL1 t(9;22)(q34;q11.2)
- ☐ CBFβ/MYH11 inv(16)(p13q22)/t(16q22)
- ☐ D20S108 (20q12), RH7808 (20q13.3), D8Z2 (deletion 20q, trisomy 8)
- ☐ DEK/NUP214 t(6;9)(p22;q34)
- ☐ EGR1 (5q31), RPS14 (5q33) with control in 5p15 (5q deletion/monosomy 5)
- ☐ KMT2A(MLL) t(11q23)
- ☐ KMT2E (7q22), D7S522/MET (7q31.2) with control D7Z1 (7q deletion/monosomy 7)
- ☐ PML/RARA t(15;17)(q24.1;q21.1)
- ☐ RPN1/MECOM t(3;3)(q21.3;q26.2)/inv(3)(q26.2)
- ☐ RUNX1T1/RUNX1 t(8;21)(q22;q22)
- ☐ TET2 (deletion 4q24) with control 4q12
- ☐ TP53 (17p13) in combination with ATM (11q22) (deletion 17p/11q)
- ☐ Trisomy 8 (D8Z2)
- ☐ Trisomy 11 (D11Z1)
- ☐ Trisomy 21 (RUNX1: 21q22)

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))
- ☐ Trisomy 8 (D8Z2)

Myelodysplastic Syndrome (MDS)

- ☐ Complete panel (deletion 5q/monosomy 5, deletion 7q31/ monosomy 7, trisomy 8, deletion 12p, deletion 17p/i(17q), deletion 20q12, trisomy 21, -Y)
- ☐ CKS1B(1q21)/CDKN2C(1p32.2) (gain 1 or 1q)
- ☐ D20S108 (20q12), RH7808 (20q13.3), D8Z2 (deletion 20q, trisomy 8)
- ☐ ETV6/RUNX1 (deletion 12p; deletion 21q22/trisomy 21)
- ☐ EGR1 (5q31), RPS14 (5q33) with control in 5p15 (deletion 5q/monosomy 5)
- ☐ KMT2E (7q22), D7S486 (7q31) with control D7Z1 (deletion 7q/monosomy 7)
- ☐ TET2 (deletion 4q24) with control 4q12
- ☐ TP53 (17p13) in combination with ATM (11q22) (deletion 17p/i(17q), deletion 11q)
- ☐ Trisomy 8 (D8Z2)
- ☐ Loss Y-chromosome (DYZ3)

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

- ☐ BCR/ABL1 t(9;22)(q34;q11.2)
- ☐ CKS1B(1q21)/CDKN2C(1p32.2) (trisomy 1 or 1q)
- ☐ ETV6/RUNX1 (deletion 12p/ETV6-rearrangement)
- ☐ KMT2E (7q22), D7S522/MET (7q31.2) with control D7Z1 (7q deletion/monosomy 7)
- ☐ D20S108 (20q12), RH74808 (20q13.3), D8Z2 (deletion 20q/trisomy 8)
- ☐ FGFR1 t(8p11)
- ☐ PDGFRA/CHIC2/FIP1L1 (deletion 4q12, FIP1L1-/PDGFR-rearrangement)
- ☐ PDGFRB t(5q32)
- ☐ TET2 (deletion 4q24) with control 4q12
- ☐ Trisomy 8 (D8Z2)
- ☐ Trisomy 9 (D9Z3)
- ☐ TP53 (17p13) in combination with ATM (11q22) (deletion 17p/i(17q), deletion 11q)

Chronic Lymphocytic Leukmia (B-CLL) / Small Lymphocytic Lymphoma (SLL) / Lymphoplasmocytic Lymphoma Waldenstrom Macroglobulinemia

- ☐ Complete B-CLL panel (deletion 6q23, deletion 11q22, trisomy 12, deletion 13q14, deletion 13q34, IGH-rearrangement t(14q32), deletion 17p13)
- ☐ ATM (11q22) and TP53 (17p13) (deletion 11q, deletion 17p)
- ☐ BCL3 t(19q13)
- ☐ BCL6 t(3q27)/gain 3q
- ☐ CCND1/IGH t(11;14)(q13;q32))
- ☐ Centromere 12, DLEU (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(SEC63) and D6Z1
- ☐ MYC t(8q24)/gain 8q24

Non-Hodgkin-Lymphoma (NHL) / B-Cell-Lymphoma (B-NHL)

- ☐ Complete panel (deletion 6q23, deletion 11q22, trisomy 12, deletion 13q14, deletion 13q34, IGH-rearrangement t(14q32), deletion 17p13)
- ☐ ALK t(2p23) in ALK+ DLBCL
- ☐ ATM (11q22) and TP53 (17p13) (deletion 11q, deletion 17p)
- ☐ BCL3 t(19q13)
- ☐ BCL6 t(3q27)/gain 3q
- ☐ CCND1/IGH t(11;14)(q13;q32)
- ☐ CCND3/IGH t(6;14)(p21;q32)
- ☐ CDKN2A (p16, 9p21) with control CEP9 (deletion 9p)
- ☐ Centromere 12, DLEU (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 (SEC63) and D6Z1
- ☐ MYC t(8q24)/gain 8q24
- ☐ MYC/IGH t(8;14)(q24;q32)

T-Cell-Lymphoma (T-NHL)

- ☐ ALK t(2p23)
- ☐ ATM (11q22.3) and TP53 (17p13.1) (deletion 11q, deletion 17p)
- ☐ ETV6/RUNX1 (deletion 12p)
- ☐ MYC t(8q24)/gain 8q24
- ☐ PDGFRA/CHIC2/FIP1L1 (deletion 4q12, FIP1L1-/PDGFR-rearrangement)
- ☐ TCR α/δ t(14q11)

Plasma Cell Myeloma / Multiple Myeloma / MGUS

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

- ☐ Complete panel (deletion 1p32.3, amplification 1q21, deletion/ gain 11q22, trisomy 12, deletion 13q14, deletion 13q34, monosomy 13, IGH-rearrangement t(14q32), deletion 17p13)
- ☐ Aneuploidies of the chromosomes: 5 (5p15), 9 (9q22), 15 (15q22)
- ☐ ATM (11q22) and TP53 (17p13) (deletion/gain 11q, deletion 17p)
- ☐ CKS1B (1q21)/CDKN2C (1p32.2) (deletion 1p/amplification 1q)
- ☐ CCND1/IGH t(11;14)(q13;q32)
- ☐ CCND3/IGH t(6;14)(p21;q32)
- ☐ Centromere 12, DLEU (13q14), LAMP1 (13q34) (deletion 13q/monosomy 13)
- ☐ FGFR3/IGH t(4;14)(p16;q32)
- ☐ IGH t(14q32)
- ☐ IGH/MAFA t(14;16)(q32;q23)
- ☐ IGH/MAFB t(14;20)(q32;q12)
- ☐ MYC/IGH t(8;14)(q24;q32)

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

- ☐ Aneuploidies of the chromosomes 4 (D4Z1), 10 (D10Z1), 17 (D17Z1),
- ☐ Aneuploidies of the chromosome 21 (RUNX1)
- ☐ BCR/ABL1 t(9;22)(q34;q11.2)
- ☐ CDKN2A (p16, 9p21) with control CEP9 (deletion 9p)
- ☐ E2A(TCF3) t(19p13.3)
- ☐ ETV6/RUNX1 t(12;21)(p13;q22)
- ☐ ETV6/RUNX1 (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)/MLLT1(ENL) t(11;19)(q23.3;p13.3)
- ☐ KMT2A(MLL)/MLLT3(AF9) t(9;11)(p21.3;q23.3)
- ☐ KMT2A(MLL)/MLLT4(AF6) t(6;11)(q27;q23.3)
- ☐ MYB (6q23) with controls in 6q21 (SEC63) and D6Z1
- ☐ MYC t(8q24)
- ☐ MYC/IGH t(8;14)(q24;q32)
- ☐ TCF3/PBX1 t(1;19)(q23;p13.3) with HLF (17q22)

T-Cell Acute Lymphoblastic Leukemia (T-ALL)

- ☐ CDKN2A (p16, 9p21) with control CEP9 (deletion 9p)
- ☐ MYB (6q23) with controls in 6q21 (SEC63) and D6Z1
- ☐ TCR α/δ t(14q11)

Severe Aplastic Anemia (AA)

- ☐ Centromere 12, DLEU (13q14), LAMP1 (13q34) (trisomy 12, deletion 13q14, deletion 13q)
- ☐ KMT2E (7q22), D7S522/MET (7q31.2) with control D7Z1 (7q deletion/monosomy 7)
- ☐ MYB (6q23) with controls in 6q21 (SEC63) and D6Z1
- ☐ TP53 (17p13) in combination with ATM (11q22) (deletion 17p)
- ☐ Trisomy 8 (D8Z2)
- ☐ Trisomy 21 (RUNX1: 21q22)

Chromosome X- and Y-specific FISH after BMT

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

Other FISH probes (on request)

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