Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-ML-13125-01-00 according to DIN EN ISO 15189:2014

Valid from: 19.08.2020
Date of issue: 19.08.2020

Holder of certificate:

Universitätsklinikum Bonn
Institut für Experimentelle Hämatologie und Transfusionsmedizin
Venusberg- Campus 1, 53127 Bonn

Examinations in the field:

Medical Laboratory Diagnostics

Medical laboratory fields:
Clinical chemistry
Immunology
Human genetics (molecular human genetics)
Microbiology
Virology
Transfusion medicine (incl. immunogenetics and transplantation immunology)

Within the given type of examination marked with *), the medical laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the free choice of standards or equivalent examination procedures.
Within the given type of examination marked with **), the medical laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the modification, development and refinement of examination procedures.
The listed examination procedures are exemplary. The medical laboratory maintains a current list of all examination procedures within the flexible scope of accreditation.

The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.
https://www.dakks.de/en/content/accredited-bodies-dakks

Medical laboratory field: Clinical Chemistry

Field of examination:
Aggregometry**

Analyte (measurand)	Examination material (matrix)	Examination technique
Platelet aggregation	Hirudin whole blood	Platelet aggregation test
Anti-Heparin-PF4-antibodies	Serum	Platelet aggregation test
Platelet aggregation (ADP, Adrenaline, Collagen, Ristocetin, arachidonic acid)	Citrated blood (PRP)	Platelet aggregation test

Field of examination:
Flow cytometry (including blood cell counting)*

Analyte (measurand)	Examination material (matrix)	Examination technique
Reticulocytes	EDTA-blood	Flow cytometric cell count measurement and differentiation
Differential blood count	EDTA-blood	Flow cytometric cell count measurement and differentiation
Leucocytes	EDTA-blood	Flow cytometric cell count measurement and differentiation
Erythrocytes	EDTA-blood	Flow cytometric cell count measurement and differentiation
Haematocrit	EDTA-blood, concentrated erythrocytes	Flow cytometric cell count measurement and differentiation
Platelets	EDTA-blood, citrated blood	Flow cytometric cell count measurement and differentiation
Platelets	Platelet apheresis concentrate, concentrated erythrocytes	Flow cytometric cell count measurement and differentiation
Leucocytes	Concentrated erythrocytes, concentrated platelets, FFP	Flow cytometric cell count measurement and differentiation
Leucocyte count	EDTA-blood and aliquots of apheresis products	Flow cytometric cell count measurement and differentiation
Phosphatidylinositol- glycane-A (PIGA) of multi-potential haematopoetic stem cells within bone marrow (paroxysmal nocturnal hemoglobinuria)	EDTA-blood	Flow cytometric cell count measurement and differentiation

Field of examination:
Electrophoresis**

Analyte (measurand)	Examination material (matrix)	Examination technique
VWF-multimer-analysis	Citrated plasma	SDS- polyacrylamide-electrophoresis
Albumine	serum	Zone electrophoresis (Cellulose-acetate-electrophoresis)
Alpha-1-fraction	serum	Zone electrophoresis (Cellulose-acetate-electrophoresis)
Alpha-2-fraction	serum	Zone electrophoresis (Cellulose-acetate-electrophoresis)
Beta-fraction	serum	Zone electrophoresis (Cellulose-acetate-electrophoresis)
Gamma-fraction	serum	Zone electrophoresis (Cellulose-acetate-electrophoresis)

Field of examination:
Coagulometry**

Analyte (measurand)	Examination material (matrix)	Examination technique
Thrombelastography	Citrated blood	Mechanical detection analysis
In-vitro-bleeding-time	Citrated blood	Mechanical detection analysis
Caolin clotting time	Citrated plasma	Mechanical detection analysis
Coagulation factor VIII Clotting “Na”	Citrated plasma	Mechanical detection analysis
Coagulation factor VIII Clotting	Citrated plasma	Optical detection analysis
FVIII-inhibitor	Citrated plasma	Optical detection analysis
FIX-inhibitor	Citrated plasma	Optical detection analysis
Thrombin inhibitors	Citrated plasma	Optical detection analysis
Thromboplastin time	Citrated plasma	Optical detection analysis
Activated partial thromboplastin time	Citrated plasma	Optical detection analysis
Lupus-PTT	Citrated plasma	Optical detection analysis
Thrombin time	Citrated plasma	Optical detection analysis
Reptilase time	Citrated plasma	Optical detection analysis
Fibrinogen activity	Citrated plasma	Optical detection analysis
Factor-II-activity	Citrated plasma	Optical detection analysis
Factor-V-activity	Citrated plasma	Optical detection analysis
Factor-VII-activity	Citrated plasma	Optical detection analysis
Factor-VIII-activity	Citrated plasma	Optical detection analysis
Factor-IX-activity	Citrated plasma	Optical detection analysis
Factor-X-activity	Citrated plasma	Optical detection analysis
Factor-XI-activity	Citrated plasma	Optical detection analysis
Factor-XII-activity	Citrated plasma	Optical detection analysis
dRVV-Screen/confirm	Citrated plasma	Optical detection analysis
APC-resistance	Citrated plasma	Optical detection analysis

Field of examination:
Ligand assays*

Analyte (measurand)	Examination material (matrix)	Examination technique
ADAMTS-13-activity and antigen	Citrated plasma	Enzyme Immunoassay
ADAMTS-13-antibodies	Serum, citrated plasma	Fluorescence Immunoassay
Protein-C-antigen	Citrated plasma	Enzyme immunoassay
Phospholipid-Screen IgG/IgM	Citrated plasma	Enzyme immunoassay
Serum-Prothrombin IgG/IgM	Citrated plasma	Enzyme immunoassay
Collagen-binding-assay	Citrated plasma	Enzyme immunoassay
Thrombin-Antithrombin-complex	Citrated plasma	Enzyme immunoassay
Prothrombin fragment 1+2	Citrated plasma	Enzyme immunoassay
Plasminogen-alpha-2-antiplasmin complex	Citrated plasma	Enzyme immunoassay
AFP	Serum	Enzyme immunoassay
Anti-heparin-PF4-antibody	Serum, citrated plasma	Enzyme immunoassay (ELISA)
Endogenous thrombin formation potential	Citrated plasma	Fluorescence immunoassay
C1-Esterase inhibitor	Citrated plasma	Immunodiffusion

Field of examination:
Spectrometry (Immunoturbidimetry)**

Analyte (measurand)	Examination material (matrix)	Examination technique
CRP	Heparin plasma, serum	Immunoturbidimetry
Haptoglobin	Heparin plasma, serum	Immunoturbidimetry
D-Dimer-concentration	Citrated plasma	Immunoturbidimetry
von-Willebrand-Factor-Antigene	Citrated plasma	Immunoturbidimetry
Free protein-S-Antigen	Citrated plasma	Immunoturbidimetry
Lp(a)	Heparin plasma, serum	Immunoturbidimetry
vWF-activity	Citrated plasma	Immunoturbidimetry
Fibrinogen concentration	Citrated plasma	Immunoturbidimetry
Antithrombin concentration	Citrated plasma	Immunoturbidimetry

Field of examination:
Microscopy**

Analyte (measurand)	Examination material (matrix)	Examination technique
Platelet morphology	EDTA-blood	Bright-field microscopy (after colouring by dye)
Reticulocytes	EDTA-blood	Bright-field microscopy (after colouring by dye)
Differential blood count	EDTA-blood	Bright-field microscopy (after colouring by dye)
HbF	Cord blood, maternal EDTA-blood	Bright-field microscopy (after colouring by dye)

Field of examination:
Spectrometry (UV/VIS photometry)*

Analyte (measurand)	Examination material (matrix)	Examination technique
GOT (AST)	Heparin plasma, serum	Photometry
GPT (ALT)	Heparin plasma, serum	Photometry
Gamma-GT	Heparin plasma, serum	Photometry
ALP	Heparin plasma, serum	Photometry
LDH	Heparin plasma, serum	Photometry
Lipase	Heparin plasma, serum	Photometry
Amylase	Heparin plasma, serum	Photometry
CHE	Heparin plasma, serum	Photometry
Total bilirubin	Heparin plasma, serum	Photometry
Calcium	Heparin plasma, serum	Photometry
Creatinine	Heparinplasma, Serum	Photometrie
Total protein	Heparin plasma, serum	Photometry
Urea	Heparin plasma, serum	Photometry
Uric acid	Heparin plasma, serum	Photometry
Antithrombin-activity	Citrated plasma	Photometry
Plasminogen-activity	Citrated plasma	Photometry
Anti-Xa-activity	CTAD-plasma, Citrated plasma	Photometry
α2-Anti-plasmin-activity	Citrated plasma	Photometry
C1-Esterase-inhibitor-activity	Citrated plasma	Photometry
Factor-XIII-activity	Citrated plasma	Photometry
Protein C activity	Citrated plasma	Photometry
Haemoglobin (HGB)	EDTA-blood, citrated plasma	Photometry
Haemoglobin	Capillary blood	Photometry
Haemoglobin	Platelet apheresis concentrate	Photometry
Coagulation factor VIII chromogen	Citrated plasma	Photometry
Homocysteine concentration	EDTA-plasma	Photometry

Field of examination:
Spectrometry (fluorescence spectrometry)*

Analyte (measurand)	Examination material (matrix)	Examination technique
Platelet secretion (ATP-release by collagen, thrombin)	Citrated plasma (PRP)	Bioluminescence measurement

Medical laboratory field: Immunology

Field of examination:
Flow cytometry*

Analyte (measurand)	Examination material (matrix)	Examination technique
CD34+-cell count	EDTA-blood, aliquots of apheresis products	Flow cytometric cell count and differentiation
Platelets (CD42b, CD41a, CD62)	Citrated plasma or PRP	Immunophenotyping haematology
Lymphocytes (CD45/CD14, CD3/CD19, CD3/CD4, CD3/CD8, CD3/CD16+CD65)	EDTA-blood	Immunophenotyping haematology

Field of examination:
Ligand assays**

Analyte (measurand)	Examination material (matrix)	Examination technique
IgG-/IgM-Antiβ2-glycoprotein I	Serum, citrated plasma	Enzyme Immunoassay (ELISA)
Platelet antibodies (direct)	EDTA-blood	Enzyme Immunoassay (MAIPA)
Platelet antibodies (indirect)	Serum	Enzyme Immunoassay (MAIPA)

Field of examination:
Spectrometry (Immunoturbidimetry)**

Analyte (measurand)	Examination material (matrix)	Examination technique
IgA	Heparin plasma, serum	Immunoturbidimetry
IgG	Heparin plasma, serum	Immunoturbidimetry
IgM	Heparin plasma, serum	Immunoturbidimetry

Medical laboratory field: Human Genetics (Molecular human genetics)

Field of examination:
Molecular biological tests (amplification procedures)**

Analyte (measurand)	Examination material (matrix)	Examination technique
Fibrinogen-α,β,γ genes (FGA, FGB, FGG)	Whole blood (EDTA-/ citrate)/ genomic DNA	DNA-Sequencing
F2-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
F5-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
F7-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
F8-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
F9-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
F10-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
F11-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
F12-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
F13A and F13B-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing

Analyte (measurand)	Examination material (matrix)	Examination technique
vWF-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
KLKB1-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
KNG1-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
LMAN1 and MCFD2-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
VKORC1 and GGCX-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
VKORC1, Cyp2C9 (exons 3 +7), Cyp4F2 (exon11)-genes	Whole blood (EDTA-/ citrate)/ genomic DNA	DNA-Sequencing
SERPINC1-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
PROC-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
PROS1-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
THBD-gene	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
ADAMTS13	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
EPCR (PROCR-(gene))	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
ACVRL1	Whole blood (EDTA-/ citrate)/	DNA-Sequencing
ENG (-gene)	EDTA-blood, citrated blood,	DNA-Sequencing
PAI-I (-gene)	EDTA-blood, genomic DNA	DNA-Sequencing
FXIII-Val34Leu-polymorphism	EDTA-blood, genomic DNA	DNA-Sequencing
Plasminogen (-gene)	EDTA-Blood, genomic DNA	DNA-Sequencing
Prothrombin G20210A-polymorphism	EDTA-blood, genomic DNA	Fluorescence-labelled hybridization probes (real-time PCR)
APC, FV-Leiden (G1691A) polymorphism	EDTA-blood, genomic DNA	Fluorescence-labelled hybridization probes (real-time PCR)
Janus-Kinase-2 (JAK2) V617F-mutation (qualitative)	EDTA-blood, genomic DNA	Fluorescence-labelled hybridization probes (real-time PCR)
F8-gene, Intron 1 inversion	Whole blood (EDTA-/ citrate)/ genomic DNA	Size specific DNA-fragment analysis in gel matrix
F8-gene, Intron 22 inversion	Whole blood (EDTA-/ citrate)/ genomic DNA	Size specific DNA-fragment analysis in gel matrix
F7-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
F8-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
F9-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
F10-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
F11-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
PROS1-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)

Analyte (measurand)	Examination material (matrix)	Examination technique
PROC-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
SERPINC1-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
F12-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
F5-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
vWF-gene	Whole blood (EDTA-/ citrate)/ genomic DNA	Multiplex ligation-mediated probe amplification (MLPA)
MTHFR C677T-polymorphism	EDTA-blood, genomic DNA	Restriction enzyme cleavage of amplificates (RFLP)
FV-HR2-haplotype (G4070A)	EDTA-blood, genomic DNA	Restriction enzyme cleavage of amplificates (RFLP)
Prothrombin G20210A-Polymorphism	EDTA-blood, genomic DNA	Restriction enzyme cleavage of amplificates (RFLP)
PAI-4G/5G-polymorphism	EDTA-blood, genomic DNA	Restriction enzyme cleavage of amplificates (RFLP)
APC, FV-Leiden (G1691A) polymorphism	EDTA-blood, genomic DNA	Restriction enzyme cleavage of amplificates (RFLP)

Medical laboratory field: Microbiology

Field of examination:
Ligand assays*

Analyte (measurand)	Examination material (matrix)	Examination technique
Treponema pallidum antibodies (TP)	Serum, plasma	Chemiluminescent microparticle immunoassay (CMIA)

Medical laboratory field: Virology

Field of examination:
Ligand assays*

Analyte (measurand)	Examination material (matrix)	Examination technique
Hepatitis-B-core-antibody	Serum, plasma	Chemiluminescent microparticle immunoassay (CMIA)
Hepatitis-B-surface-antigenes	Serum, plasma	Chemiluminescent microparticle immunoassay (CMIA)
Hepatitis-C-virus-antibodies	Serum, plasma	Chemiluminescent microparticle immunoassay (CMIA)
Human-immunodeficiency-virus-type-1/2-go-antibodies+p24Ag	Serum, plasma	Chemiluminescent microparticle immunoassay (CMIA)

Field of examination:
Molecular biological tests (amplification procedures)*

Analyte (measurand)	Examination material (matrix)	Examination technique
HCV-RNA (pool-testing)	EDTA-plasma, serum	Transcription mediated amplification (TMA)
HCV-RNA (single-testing)	EDTA-plasma, serum	Transcription mediated amplification (TMA)
HIV-1/2-RNA (pool-testing)	EDTA-plasma, serum	Transcription mediated amplification (TMA)
HIV-1/2-RNA (single-testing)	EDTA-plasma, serum	Transcription mediated amplification (TMA)
HBV-DNA (single-testing)	EDTA-plasma, serum	Transcription mediated amplification (TMA)
HBV-DNA (pool-testing)	EDTA-plasma, serum	Transcription mediated amplification (TMA)
HEV-RNA (pool-testing)	EDTA-plasma, serum	Transcription mediated amplification (TMA)
HEV-RNA (single-testing)	EDTA-plasma, serum	Transcription mediated amplification (TMA)

Field of examination: Transfusion Medicine (incl. immunogenetics and transplantation immunology)

Field of examination:
Agglutination tests*

Analyte (measurand)	Examination material (matrix)	Examination technique
Indirect anti-human globulin test	EDTA-blood	Hemagglutination assay
ABD identity test	EDTA-blood	Hemagglutination assay
AB-D	EDTA-blood, native blood, cord	Hemagglutination assay
AB0-system	EDTA-blood, native blood, cord	Hemagglutination assay
Rhesus-D-factor	EDTA-blood, native blood, cord	Hemagglutination assay
Rhesus-subgroups	EDTA-blood, native blood, cord	Hemagglutination assay
Kell-system	EDTA-blood, native blood, cord	Hemagglutination assay
A-subgroup	EDTA-blood, native blood	Hemagglutination assay
Antibody screening test	EDTA-blood, native blood	Hemagglutination assay
Antibody differentiation	Serum, plasma, EDTA-blood	Hemagglutination assay
Antibody titer	Serum, plasma, EDTA-blood	Hemagglutination assay
Additional erythroid antigens	EDTA-blood, native blood	Hemagglutination assay
Haemolysins	Serum	Hemagglutination assay
Isoagglutinins (serum properties)	EDTA-blood	Hemagglutination assay
Direct anti-human globulin test	EDTA-blood	Hemagglutination assay
Extended antibody-sceening test (IAT)	Serum, native blood	Hemagglutination assay
Cross match	EDTA-blood, native blood	Hemagglutination assay
Cold antibody titer	EDTA-blood, native blood	Hemagglutination test
Medical pending antibodies	EDTA-blood, native blood, urine	Hemagglutination test

Analyte (measurand)	Examination material (matrix)	Examination technique
HTLA-antibodies	EDTA-blood, native blood	Hemagglutination assay
Bound auto- and allo-antibodies	EDTA-blood, native blood, cord blood	Hemagglutination assay with eluate after antibody-elution/avulsion

Field of examination:
Ligand assays**

Analyte (measurand)	Examination material (matrix)	Examination technique
HLA-class-I-antibodies (indirect)	Serum	Enzyme Immunoassay (MAIPA)
HPA-1a-typing	Serum	Enzyme Immunoassay (MAIPA)
HPA-3a/b-typing	Serum	Enzyme Immunoassay (MAIPA)
Crossmatch between father and mother	EDTA-blood (from father) + serum (from mother)	Enzyme Immunoassay (MAIPA)
HLA-class-I-antibodies	Serum	Fluorescence Immunoassay

Field of examination:
Lysis reactions**

Analyte (measurand)	Examination material (matrix)	Examination technique
HLA-antibody-screening	Serum	Lymphocytotoxicity test
HLA-antibody differentiation	Serum	Lymphocytotoxicity test
Crossmatch (serological compatibility test within HLA-system)	Recipient: serum; donor: whole blood (Liquemin) or Li-Heparin	Lymphocytotoxicity test

Field of examination:
Molecular biological tests (amplification procedures)*

Analyte (measurand)	Examination material (matrix)	Examination technique
ABO-Type	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
RH-Type	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
RHD	EDTA-whole blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
D-Weak	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
D-Partial	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
RHCE	EDTA-whole blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
RH Dweak/Dpartial	EDTA-whole blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
RHD-Zygosity	EDTA-whole blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
Special erythroid blood group antigens (	EDTA-whole blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HPA (1,2,3,4,5, 6,9 and 15)-type blood g	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HLA-class-I-typing (A-locus)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)

Analyte (measurand)	Examination material (matrix)	Examination technique
HLA-class-I-typing (B-locus)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HLA-class-I-typing (C-locus)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HLA-class-II-typing (DRB,DQB)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HLA-class-I-typing (A-locus)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HLA-class-I-typing (B-locus)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HLA-class-I-typing (C-locus)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HLA-class-II-typing (DRB)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HLA-Klasse II-typing (DQB)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)
HLA-class II-typing (DPB)	EDTA-blood, genomic DNA	Sequence (mutation-)-specific PCR (SSP-PCR)

Field of examination:
Molecular biological tests (hybridisation procedures)*

Analyte (measurand)	Examination material (matrix)	Examination technique
HLA-class I-typing (A-Locus)	EDTA-blood, genomic DNA	Reverse sequence-specific hybridization (rSSO)
HLA-class I-typing (B-locus)	EDTA-blood, genomic DNA	Reverse sequence-specific hybridization (rSSO)
HLA-class I-typing (C-locus)	EDTA-blood, genomic DNA	Reverse sequence-specific hybridization (rSSO)
HLA-class II-typing (DRB)	EDTA-blood, genomic DNA	Reverse sequence-specific hybridization (rSSO)
HLA-class II-typing (DQA, DQB)	EDTA-blood, genomic DNA	Reverse sequence-specific hybridization (rSSO)
HLA-class II-typing (DRB 3*/4*/5*)	EDTA-blood, genomic DNA	DNA-Sequencing -(Sequence based typing, SBT)
HLA-Klasse II-Typisierung (DPA, DPB)	EDTA-blood, genomic DNA	reverse sequence specific hybridisation (rSSO)