

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-ML-13347-01-01 according to DIN EN ISO 15189:2014

Valid from: 09.07.2020

Date of issue: 09.07.2020

Holder of certificate:

MVZ Labor Ravensburg GbR
Elisabethenstraße 11, 88212 Ravensburg

Examinations in the field:

Medical laboratory diagnostics

Medical laboratory fields:

Clinical chemistry

Immunology

Human genetics (human molecular genetics)

Microbiology

Virology

Transfusion medicine

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

Type of test:

Agglutination tests*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Cold agglutinins	EDTA plasma, own erythrocytes	Haemagglutination test
Anti-heparin/PF4 antibody	Serum	Particle agglutination test

Type of test:

Aggregometry*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Thrombocyte function	Citrated blood	Thrombocyte aggregation test
BSG/BKS (blood sedimentation rate)	EDTA-blood	Flow analyse

Type of test:

Araeometry*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Specific gravity	Punctate	Density measurement

Type of test:

Chromatography (gas chromatography (GC)) **

Analyte (measurement parameter)	Test material (matrix)	Test technique
Omega-3 fatty acids	Serum, plasma	GC/FID
Omega-6 fatty acids	Serum, plasma	GC/FID

Type of test:

Chromatography (high performance liquid chromatography (HPLC))**

Analyte (measurement parameter)	Test material (matrix)	Test technique
5-HIAA (5-Hydroxyindoleacetic acid)	Urine	HPLC/ECD
β-Carotene	Serum, plasma	HPLC/ECD
Coenzyme Q10 (ubiquinone)	Serum, plasma	HPLC/ECD
Homovanillic acid (HVS)	Urine	HPLC/ECD
Catecholamines (adrenaline,	Urine	HPLC/ECD
Metanephrine, normetanephrine	Urine	HPLC/ECD
Serotonin	Serum, urine	HPLC/ECD
Vanillylmandelic acid (VMA)	Urine	HPLC/ECD
Glutathione (GSH), reduced	EDTA, heparin blood	HPLC/FD
HbA1c (glycated haemoglobin)	EDTA blood	HPLC/FD
Malondialdehyde	Plasma	HPLC/FD

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Analyte (measurement parameter)	Test material (matrix)	Test technique
Pyridinoline, deoxypyridinoline (crosslinks)	Urine	HPLC/FD
Vitamin B1 (thiamine pyrophosphate)	EDTA blood	HPLC/FD
Vitamin B2 (FAD)	EDTA blood	HPLC/FD
Vitamin B6 (pyridoxal and pyridoxal-5-	EDTA blood, serum, plasma	HPLC/FD
Polyethylene glycols	Urine	HPLC/IRD
Amiodarone, desethyl amiodarone	Serum, plasma	HPLC/UV/VISD
Carbamazepine-10,11-epoxide	Serum, plasma	HPLC/UV/VISD
CDT (carbohydrate deficient transferrin)	Serum	HPLC/UV/VISD
Caffeine	Serum, plasma	HPLC/UV/VISD
Eslicarbazepine acetate	Serum, plasma	HPLC/UV/VISD
Ethosuximide	Serum, plasma	HPLC/UV/VISD
Lamotrigine	Serum, plasma	HPLC/UV/VISD
Methsuximide (N-desmethyl	Serum, plasma	HPLC/UV/VISD
Mycophenolic acid	Serum, plasma	HPLC/UV/VISD
Oxcarbazepine (10-OH-	Serum, plasma	HPLC/UV/VISD
Phenobarbital	Serum, plasma	HPLC/UV/VISD
Primidone	Serum, plasma	HPLC/UV/VISD
Salicylate	Serum, plasma	HPLC/UV/VISD
Sultiame	Serum, plasma	HPLC/UV/VISD
Thiopental	Serum, plasma	HPLC/UV/VISD
Vitamin A (retinol)	Serum, plasma	HPLC/UV/VISD
Vitamin C (ascorbic acid)	Serum	HPLC/UV/VISD
Vitamin E (α -Tocopherol)	Serum, plasma	HPLC/UV/VISD
Zonisamide	Serum, plasma	HPLC/UV/VISD
3-nitrotyrosine free	Serum, plasma	UPLC/MS-MS
Amisulpride	Serum, plasma	UPLC/MS-MS
Amitriptyline, nortriptyline	Serum, plasma	UPLC/MS-MS
Aripiprazole, Dehydroaripiprazole	Serum, plasma	UPLC/MS-MS
Brivaracetam	Serum, plasma	UPLC/MS-MS
Bromazepam	Serum, plasma	UPLC/MS-MS
Bupropion	Serum, plasma	UPLC/MS-MS
Citalopram	Serum, plasma	UPLC/MS-MS
Citrulline	Urine	UPLC/MS-MS
Clobazam	Serum, plasma	UPLC/MS-MS
Clomipramine,	Serum, plasma	UPLC/MS-MS
Clonazepam	Serum, plasma	UPLC/MS-MS
Clozapine, desmethylclozapine	Serum, plasma	UPLC/MS-MS
Desipramine	Serum, plasma	UPLC/MS-MS
Diazepam, nordiazepam	Serum, plasma	UPLC/MS-MS

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Analyte (measurement parameter)	Test material (matrix)	Test technique
Diphenhydramine	Urine	UPLC/MS-MS
Doxepin, nordoxepin	Serum, plasma	UPLC/MS-MS
Drugs	Sputum	UPLC/MS-MS
Drugs (confirmation)	Urine	UPLC/MS-MS
Duloxetine	Serum, plasma	UPLC/MS-MS
Ethyl glucuronide (confirmation)	Urine	UPLC/MS-MS
Everolimus	EDTA blood	UPLC/MS-MS
Felbamate	Serum, plasma	UPLC/MS-MS
Flecainide	Serum, plasma	UPLC/MS-MS
Flunitrazepam	Serum, plasma	UPLC/MS-MS
Fluoxetine, norfluoxetine	Serum, plasma	UPLC/MS-MS
Flupentixol	Serum, plasma	UPLC/MS-MS
Gabapentin	Serum, plasma	UPLC/MS-MS
Glutamic acid (glutamate)	Urine	UPLC/MS-MS
Haloperidol	Serum, plasma	UPLC/MS-MS
Imipramine	Serum, plasma	UPLC/MS-MS
Lacosamide	Serum, plasma	UPLC/MS-MS
Levetiracetam	Serum, plasma	UPLC/MS-MS
Lorazepam	Serum, plasma	UPLC/MS-MS
Maprotiline, Normaprotiline	Serum, plasma	UPLC/MS-MS
Metanephrine, normetanephrine	EDTA plasma	UPLC/MS-MS
Methylmalonic acid	Serum, plasma	UPLC/MS-MS
Midazolam	Serum, plasma	UPLC/MS-MS
Mirtazapine	Serum, plasma	UPLC/MS-MS
Nitrazepam	Serum, plasma	UPLC/MS-MS
Olanzapine, Desmethylolanzapine	Serum, plasma	UPLC/MS-MS
Oxazepam	Serum, plasma	UPLC/MS-MS
Perampanel	Serum, plasma	UPLC/MS-MS
Polyethylene glycols (marker)	Urine	UPLC/MS-MS
Pregabalin	Serum, plasma	UPLC/MS-MS
Pregnenolone sulphate	Serum, plasma	UPLC/MS-MS
Quetiapine, Norquetiapine	Serum, plasma	UPLC/MS-MS
Risperidone, 9-OH-risperidone	Serum, plasma	UPLC/MS-MS
Sertraline	Serum, plasma	UPLC/MS-MS
Sirolimus	EDTA blood	UPLC/MS-MS
TCA (tricyclic antidepressants)	Urine	UPLC/MS-MS
Temazepam	Serum, plasma	UPLC/MS
THC-COOH, THC-COOH-glucuronide	Urine	UPLC/MS
Topiramate	Serum, plasma	UPLC/MS
Trimipramine, Nortrimipramine	Serum, plasma	HPLC/UV/VISD
Venlafaxine, desmethylvenlafaxine	Serum, plasma	UPLC/MS
Vigabatrin	Serum, plasma	UPLC/MS

Type of test:

Flow cytometry*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Lymphocyte differentiation	EDTA blood, BAL	Fluorescence intensity
NK T cells	EDTA blood	Fluorescence intensity

Type of test:

Flow cytometry (particle property determination)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Blood count small and large (haemoglobin, haematocrit, erythrocytes, leukocytes, thrombocytes, MCV, MCH, MCHC, machine differential blood count)	EDTA blood	Particle counting, optical-electronic
Leukocytes, erythrocytes	liquor	Particle counting, optical-electronic
Reticulocytes	EDTA blood	Particle counting, optical-electronic
Urine sediment	Urine	Particle counting, optical-electronic
Cell count determination	Body fluids, blood	Particle counting, optical-electronic

Type of test:

Electrochemical tests*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Chloride	Serum, plasma, urine, dialysate	Potentiometry
Potassium	Serum, plasma, urine, dialysate	Potentiometry
Sodium	Serum, plasma, urine, dialysate	Potentiometry

Type of test:

Electrophoresis*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Protein electrophoresis	Serum	Capillary electrophoresis
Haemoglobin electrophoresis	EDTA blood	Capillary electrophoresis
AP isoenzymes	Serum	Zone electrophoresis

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Type of test:

Coagulometry*

Analyte (measurement parameter)	Test material (matrix)	Test technique
APC resistance	Citrated plasma	Optical detection procedure
Fibrinogen	Citrated plasma	Optical detection procedure
Coagulation factor II	Citrated plasma	Optical detection procedure
Coagulation factor V	Citrated plasma	Optical detection procedure
Coagulation factor VII	Citrated plasma	Optical detection procedure
Coagulation factor VIII	Citrated plasma	Optical detection procedure
Coagulation factor IX	Citrated plasma	Optical detection procedure
Coagulation factor X	Citrated plasma	Optical detection procedure
Coagulation factor XI	Citrated plasma	Optical detection procedure
Coagulation factor XII	Citrated plasma	Optical detection procedure
Lupus anticoagulant	Citrated plasma	Optical detection procedure
Lupus sensitive APTT	Citrated plasma	Optical detection procedure
MixConLA	Citrated plasma	Optical detection procedure
Protein S activity	Citrated plasma	Optical detection procedure
PTT (partial thromboplastin time)	Citrated plasma	Optical detection procedure
Quick, INR	Citrated plasma	Optical detection procedure
Thrombin time	Citrated plasma	Optical detection procedure

Type of test:

Ligand assays*

Analyte (measurement parameter)	Test material (matrix)	Test technique
1.25 Vitamin D	Serum, plasma	CLIA
17-beta-estradiol	Serum, plasma	CLIA
Aldosterone	Serum, plasma	CLIA
Beta-2-microglobulin	Serum, plasma, urine	CLIA
BNP	Plasma	CLIA
C-peptide	Serum, plasma	CLIA
Calcitonin (HCT)	Serum, plasma	CLIA
Carbamazepine	Serum, plasma	CLIA
Cortisol	Serum, urine	CLIA
Digitoxin	Serum, plasma	CLIA
Digoxin	Serum	CLIA
EPO (erythropoietin)	Serum, plasma	CLIA
FSH	Serum	CLIA
FT3 (free triiodothyronine)	Serum	CLIA
FT4 (free thyroxine)	Serum, plasma	CLIA
Gastrin	Serum	CLIA
HIT-IgG	Serum, plasma	CLIA
hGH (STH)	Serum, plasma	CLIA
Homocysteine	Serum, plasma	CLIA

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Analyte (measurement parameter)	Test material (matrix)	Test technique
IGF-1 (somatomedin C)	Serum	CLIA
IGF-BP3	Serum, plasma	CLIA
Insulin	Serum, plasma	CLIA
Interleukin-2 receptor	Serum	CLIA
LH	Serum	CLIA
Ostase (BAP)	Serum	CLIA
Osteocalcin	Serum	CLIA
Progesterone	Serum	CLIA
Prolactin	Serum	CLIA
Renin	Plasma	CLIA
SHBG	Serum, plasma	CLIA
T3 (triiodothyronine)	Serum	CLIA
T4 (thyroxine)	Serum	CLIA
Testosterone	Serum	CLIA
Thymidine kinase (TK)	Serum, plasma	CLIA
TPA (tissue polypeptide antigen)	Serum, plasma	CLIA
Troponin I hs	Serum, Plasma	CLIA
TSH	Serum	CLIA
Valproic acid	Serum, plasma	CLIA
ACTH	EDTA plasma	ECLIA
AFP (alpha-1-fetoprotein)	Serum, plasma	ECLIA
CA 125	Serum, plasma	ECLIA
CA 15-3	Serum, plasma	ECLIA
CA 19-9	Serum, plasma	ECLIA
CA 72-4	Serum, plasma	ECLIA
CEA	Serum, plasma	ECLIA
Cyfra 21-1	Serum, plasma	ECLIA
DHEA-S	Serum, plasma	ECLIA
Ferritin	Serum, plasma	ECLIA
folic acid	Serum, plasma, haemolysate	ECLIA
FT3 (free triiodothyronine)	Serum, plasma	ECLIA
FT4 (free thyroxine)	Serum, plasma	ECLIA
HCG (human chorionic-gonadotropin)	Serum, plasma	ECLIA
Interleukin 6	Serum, plasma	ECLIA
NSE	Serum	ECLIA
NT-proBNP	Serum, plasma	ECLIA
Parathyroid hormone (PTH)	Serum, plasma	ECLIA
PCT (procalcitonin)	Serum, plasma	ECLIA
PLGF	Serum	ECLIA
PSA	Serum, plasma	ECLIA
PSA, free	Serum, plasma	ECLIA
S100 (protein S100)	Serum, liquor	ECLIA

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Analyte (measurement parameter)	Test material (matrix)	Test technique
sFlt-1	Serum	ECLIA
Troponin T hs	Serum, plasma	ECLIA
TSH	Serum, plasma	ECLIA
Vitamin B12	Serum, plasma	ECLIA
25-OH-vitamin D	Serum, plasma	ECLIA
Cyclosporine	EDTA blood	CMIA
Holotranscobalamin (active vitamin B12)	Serum	CMIA
Methotrexate (MTX)	Serum, plasma	CMIA
Tacrolimus	EDTA blood	CMIA
Drug detection (amphetamines, benzodiazepines, cannabis, cocaine metabolite, EDDP (methadone), opiates, barbiturates, LSD)	Urine	CEDIA
Gentamicin	Serum, plasma	CEDIA
Phenytoin	Serum, plasma	CEDIA
Theophylline	Serum, plasma	CEDIA
Tobramycin	Serum, plasma	CEDIA
Adiponectin	Serum, plasma	ELISA
Amikacin	Serum, plasma	ELISA
Biotin (vitamin H)	Serum, plasma	ELISA
Calprotectin	Stool	ELISA
CXCL13	Liquor	ELISA
markers of dementia (beta-Amyloid 1-40, beta-Amyloid 1-42, Tau-Protein, pTau)	Liquor	ELISA
DHEA	Serum	ELISA
Ethyl glucuronide (ETG)	Urine	ELISA
GABA (γ -aminobutyric acid)	Urine	ELISA
Haemoglobin	Stool	ELISA
Haemoglobin/haptoglobin complex	Stool	ELISA
hPLAP (Human placental alkaline phosphatase)	Serum, plasma	ELISA
Lactoferrin	Stool	ELISA
Melatonin	Sputum	ELISA
Pancreatic elastase 1	Stool	ELISA
Paracetamol (acetaminophen)	Serum, plasma	ELISA
Proinsulin	Serum, plasma	ELISA
Tumour M2-PK	Stool	ELISA
Carbamazepine	Serum, plasma	EMIT
Gabapentin	Urine	EMIT
Gentamicin	Serum, plasma	EMIT
Phenobarbital	Serum, plasma	EMIT

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Analyte (measurement parameter)	Test material (matrix)	Test technique
Phenytoin	Serum, plasma	EMIT
Pregabalin	Urine	EMIT
Theophylline	Serum, plasma	EMIT
Valproic acid	Serum, plasma	EMIT
Vancomycin	Serum, plasma	EMIT
17-OH progesterone	Serum, plasma	RIA
Androstenediol glucuronide	Serum, plasma	RIA
Androstenedione	Serum	RIA
Oestrone (oestrone, E1)	Serum, plasma	RIA
Oestrone sulphate (oestrone sulphate, E1-sulphate)	Serum, plasma	RIA
Chromogranin A	Serum	TRACE
Free β HCG	Serum	TRACE
PAPP-A	Serum	TRACE
Copeptine proAVP (CT-proAVP)	Serum, plasma	TRACE
SCC	Serum	TRACE
Thyreoglobulin	Serum, plasma	TRACE

Type of test:

Microscopy*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Differential blood count	EDTA blood	After colouring using stains
Iron staining	Liquor, urine, BAL	After colouring using stains
Grease staining	BAL	After colouring using stains
Leukocytes	Liquor	After colouring using stains
Differentiation of Liquor cells	Liquor	After colouring using stains
Sediment	Urine	Without colouring
Cells, crystals	Joint aspiration	Polarisation microscopy

Type of test:

Osmometry*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Osmolality	Serum, urine	Cryoscopy

Type of test:

Qualitative tests (simple) with visual check*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Drug quick test	Urine	Using reagent carriers
Pregnancy test (HCG)	Urine	Using reagent carriers
Urine status	Urine	Using reagent carriers

Type of test:

Sedimentation tests*

Analyte (measurement parameter)	Test material (matrix)	Test technique
BSG (blood sedimentation rate)	EDTA blood	Sedimentation test

Type of test:

Spectrometry (UV/VIS spectrometry)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
ACE	Serum, liquor	UV photometry
Alcohol	Urine, serum, plasma	UV photometry
Ammonia	Plasma	UV photometry
Amylase	Serum, plasma, urine	UV photometry
CHE (cholinesterase)	Serum, plasma	UV photometry
CHE atypical (pseudo-CHE)	Serum, plasma	UV photometry
Citrate	Urine	UV photometry
CK (creatine kinase)	Serum, plasma	UV photometry
CK-MB	Serum, plasma	UV photometry
GGT (gamma glutamyl transferase)	Serum, plasma	UV photometry
GHB (γ -hydroxybutyric acid)	Urine	UV photometry
GLDH (glutamate dehydrogenase)	Serum, plasma	UV photometry
Glucose	Serum, plasma, liquor, urine	UV photometry
Glucose-6-Phosphatdehydrogenase	EDTA, heparin blood	UV-Photometrie
Glutathione peroxidase (GPX)	EDTA, heparin blood	UV photometry
GOT (aspartate aminotransferase)	Serum, plasma	UV photometry
GPT (alanine aminotransferase)	Serum, plasma	UV photometry
Haemoglobin free	Plasma	UV photometry
Urea, urea clearance	Serum, plasma, urine	UV photometry
LDH (lactate dehydrogenase)	Serum, plasma	UV photometry
Lithium	Serum, plasma	UV photometry
Phosphorus (inorganic)	Serum, plasma, urine	UV photometry
Pyruvate	Plasma	UV photometry
Albumin	Serum, plasma	VIS photometry
Amylase	Speichel	VIS photometry
AP (alkaline phosphatase)	Serum, plasma	VIS photometry
AT III (antithrombin III)	Citrated plasma	VIS photometry

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Analyte (measurement parameter)	Test material (matrix)	Test technique
Bilirubin direct	Serum, plasma	VIS photometry
Bilirubin total	Serum, plasma	VIS photometry
Bilirubin neonatal	Serum	VIS photometry
Calcium	Serum, plasma	VIS photometry
Carnitine free	Serum, plasma	VIS photometry
Cholesterol	Serum, plasma	VIS photometry
Iron	Serum, plasma	VIS photometry
coagulation factor VIII	Plasma	VIS photometry
Fructosamine	Serum, plasma	VIS photometry
bile acids	Serum, plasma	VIS photometry
Total protein	Serum, plasma, liquor, urine	VIS photometry
Glucose	Urine	VIS photometry
Uric acid	Serum, plasma, urine	VIS photometry
HDL cholesterol	Serum, plasma	VIS photometry
Heparin Xa	Citrated plasma	VIS photometry
Creatinine, creatinine clearance, GFR	Serum, plasma, urine	VIS photometry
Lactate	Plasma, liquor	VIS photometry
LAP (leucine aminopeptidase)	Serum, plasma	VIS photometry
LDL cholesterol	Serum, plasma	VIS photometry
Lipase	Serum, plasma	VIS photometry
Lipid peroxides	Plasma	VIS photometry
Magnesium	Serum, plasma	VIS photometry
Oxalate	Urine	VIS photometry
Protein C activity	Citrated plasma	VIS photometry
Ritalin acid (Methylphenidat)	Urine	VIS photometry
Rivaroxaban (anti-Xa)	Citrated plasma	VIS photometry
Sucrose (spit marker)	Urine	VIS photometry
saliva content	Sputum	VIS photometry
Superoxide dismutase (SOD)	EDTA, heparin blood	VIS photometry
Triglycerides	Serum, plasma	VIS photometry
Lithium	Serum, plasma	UV spectrometry

Type of test:

Spectrometry (NIR/IR spectrometry)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Gallstone	Stone	IR spectrometry
Bladder stone	Stone	IR spectrometry
Kidney stone	Stone	IR spectrometry

Type of test:
Spectrometry (nephelometry)*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Albumin	Serum, plasma, liquor, urine	Nephelometry
Fibrinogen	Plasma	Nephelometry
Alpha-1-Antitrypsin (AAT)	Serum	Nephelometry
Alpha-1-Glycoprotein	Serum	Nephelometry
Alpha-1-Mikroglobulin	Urine	Nephelometry
Alpha-2-Makroglobulin	Serum, urine	Nephelometry
AST (Antistreptolysin O)	Serum, plasma	Nephelometry
Coeruloplasmin	Serum, plasma	Nephelometry
CRP hochsensitiv	Serum, plasma	Nephelometry
Cystatin C	Serum, plasma	Nephelometry
Haptoglobin	Serum, plasma	Nephelometry
Cryoglobulins	Serum	Nephelometry
soluble transferrin receptor (sTfR)	Serum, plasma	Nephelometry
Transferrin	Urine	Nephelometry

Type of test:
Spectrometry (turbidimetry / immunoturbidimetry)*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Albumin (Mikroalbumin)	Urine	Immunoturbidimetry
Amyloid A (SAA)	Serum	Immunoturbidimetry
(CRP) C-reactive protein	Serum, plasma	Immunoturbidimetry
Digoxin	Serum, plasma	Immunoturbidimetry
Ferritin	Serum, plasma	Immunoturbidimetry
Lipoprotein (a)	Serum, plasma	Immunoturbidimetry
Amikacin	Serum, plasma	Turbidimetry
D-Dimer	Citrated plasma	Turbidimetry
Digitoxin	Serum	Turbidimetry
Coagulation factor XIII	Citrated plasma	Turbidimetry
Protein S free	Citrated plasma	Turbidimetry
Willebrand factor activity	Citrated plasma	Turbidimetry
Willebrand factor antigen	Citrated plasma	Turbidimetry

Type of test:
Spectrometry (atom absorption spectrometry (AAS))**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Aluminium	Serum	AAS
Copper	Serum, plasma, urine	AAS
Lithium	Serum	AAS
Selenium	Serum, EDTA blood, heparin blood	AAS

Type of test:

Spectrometry (Luminescence spectrometry)*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Antioxidant capacity	Serum	Luminescence

Type of test:

Spectrometry (mass spectrometry (MS)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Aluminium	Urine	ICP-MS
Arsenic	Urine	ICP-MS
Lead	blood, urine	ICP-MS
Cadmium	blood, urine	ICP-MS
Chromium	Serum, plasma, urine	ICP-MS
Iodine	Serum, plasma, urine	ICP-MS
Cobalt	Serum, plasma, urine	ICP-MS
Copper	blood, urine	ICP-MS
Magnesium	Serum, plasma, blood, urine	ICP-MS
Manganese	Serum, plasma, blood, urine	ICP-MS
Nickel	Serum, plasma, blood, urine	ICP-MS
Mercury	blood, urine	ICP-MS
Selenium	Serum, plasma, blood, urine	ICP-MS
Zinc	Serum, plasma, blood, urine	ICP-MS

Medical laboratory fields: Immunology

Type of test:

Electrophoresis**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Beta-2-transferrin	Nasal discharge, liquor	Immunofixation electrophoresis
Immune fixation	Serum, plasma, urine	Immunofixation electrophoresis
Cryoglobulins	Serum	Immunofixation electrophoresis
Oligoclonal IgG	Serum, liquor	Isoelectric focusing
Protein electrophoresis (SDS-PAGE)	Urine	Zone electrophoresis

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Type of test:

Ligand assays**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Myoglobin	Serum, plasma	CLIA
AAB against Tg (thyroglobulin, TAK)	Serum, plasma	CLIA
AAB against TPO (thyroid peroxidase, MAK)	Serum, plasma	CLIA
AAB against TRAK (TSH receptor)	Serum	ECLIA
AAB against centromeres (ENA)	Serum, plasma	ELISA
AAB against DFS70	Serum, plasma	ELISA
AAB against dsDNS	Serum, plasma	ELISA
AAB against GAD (glutamate decarboxylase)	Serum, plasma	ELISA
AAB against ganglioside (GM1, GM2, GD1a, GD1b, GQ1b)	Serum	ELISA
AAB against histones	Serum, plasma	ELISA
AAB against IA2 (Thyrosin-Phosphatase)	Serum, plasma	ELISA
AAB against intrinsic factor	Serum, plasma	ELISA
AAB against Jo-1 (ENA)	Serum, plasma	ELISA
AAB against MCV (mutated citrullinated vimentin)	Serum, plasma	ELISA
AAB against MPO (myeloperoxidase)	Serum, plasma	ELISA
AAB against OLAB (oxidised low-density lipoprotein)	Serum	ELISA
AAB against parietal cells	Serum, plasma	ELISA
AAB against PR3 (proteinase 3)	Serum, plasma	ELISA
AAB against RNP/Sm (ENA)	Serum, plasma	ELISA
AAB against Sm (ENA)	Serum, plasma	ELISA
AAB against SS-A (ENA)	Serum, plasma	ELISA
AAB against SS-B (ENA)	Serum, plasma	ELISA
DAO (diamine oxidase)	Serum	ELISA

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Analyte (measurement parameter)	Test material (matrix)	Test technique
Histamine	Serum, plasma	ELISA
Immune complex IgG (C1q)	Serum	ELISA
AAB against AMA-M2	Serum, plasma	FEIA
AAB against beta2-Glykoprotein (IgG/IgM)	Serum, plasma	FEIA
AAB against Cardiolipin (IgG/IgM)	Serum, plasma	FEIA
AAB against CCP (cyclic citrullinated peptide)	Serum, plasma	FEIA
AAB against Fibrillarin	Serum, plasma	FEIA
AAB against gliadin (deaminated)	Serum, plasma	FEIA
AAB against glomerular basement membrane	Serum, plasma	FEIA
AAB against transglutaminase	Serum, plasma	FEIA
AAB against U1RNP	Serum	FEIA
Allergen-specific IgG	Serum	FEIA
ECP (eosinophil cationic protein)	Serum	FEIA
IgZ total	Serum, plasma	FEIA
IgE specific (RAST)	Serum, plasma	FEIA
Tryptase	Serum, plasma	FEIA
Circulating immune complexes (CIC)	Serum	Immunodiffusion
AAB against liver antigens (AMA-M2, M2-3E (BPO), LKM-1, LC-1, SLA/LP)	Serum, plasma	Immunoblot
AAB against liver antigens (AMA-M2, M2-3E (BPO), SP100, PML, gp210, LKM-1, LC-1, SLA/LP, Ro52)	Serum, plasma	Immunoblot
AB against myositis (Anti-Mi-2, Ku, PmScl, PMScl75, Jo-1, SRP, PL 7, PL 12, EJ, OJ, Ro-52)	Serum, plasma	Immunoblot
AAB against neuronal antigens (amphiphysin, CV2/CRMP5, PNMA2 (Ma2/TA), Hu, Yo, Ri)	Serum, plasma	Immunoblot
AAB against nuclear antigens (ANA) (nRNP/Sm, Sm, SS-A, Ro-52, SS-B, Scl-70, PM-Scl, Jo-1, Cenp B, PCNA, DsDNS, nucleosomen, histones, ribosomal P protein, AMA-M2)	Serum, plasma	Immunoblot
AAB against SOX1	Serum, plasma	Immunoblot
AAB against Titin	Serum, plasma	Immunoblot
AAB against acetylcholine receptor	Serum, plasma	IRMA
AAB against insulin	Serum	IRMA

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Type of test:

Microscopy**

Analyte (measurement parameter)	Test material (matrix)	Test technique
AAB against AMA (antimitochondrial antibodies)	Serum, plasma	Indirect immunofluorescence microscopy
AAB against ANA (antinuclear antibodies)	Serum, plasma	Indirect immunofluorescence microscopy
AAB against ANCA (c-ANCA, p-ANCA atypical ANCA)	Serum, plasma	Indirect immunofluorescence microscopy
AAB against Aquaporin-4	Serum, Liquor	indirekte Immunfluoreszenzmikroskopie
AAB against dsDNA	Serum, plasma	Indirect immunofluorescence microscopy
AAB against elastin	Serum	Indirect immunofluorescence microscopy
AAB against endomysium	Serum, plasma	Indirect immunofluorescence microscopy
AAB against endothelial cells	Serum	Indirect immunofluorescence microscopy
AAB against epidermal basement membrane	Serum	Indirect immunofluorescence microscopy
AAB against heart muscle	Serum	Indirect immunofluorescence microscopy
AAB against Hu (neuron core)	Serum	Indirect immunofluorescence microscopy
AAB against ICA (pancreatic islet cells)	Serum	Indirect immunofluorescence microscopy
AAB against LKM (liver-kidney microsomes)	Serum	Indirect immunofluorescence microscopy
AAB against NNR (adrenal cortex)	Serum	Indirect immunofluorescence microscopy
AAB against reticulin	Serum	Indirect immunofluorescence microscopy
AAB against Saccaromyces cerevisiae	Serum	Indirect immunofluorescence microscopy
AAB against skeletal muscle	Serum	Indirect immunofluorescence microscopy
AAB against SMA (smooth muscle)	Serum, plasma	Indirect immunofluorescence microscopy
AAB against salivary gland duct epithelium	Serum	Indirect immunofluorescence microscopy
AAB against prickle cell desmosomes	Serum	Indirect immunofluorescence microscopy
AAB against Yo (Purkinje cells)	Serum	Indirect immunofluorescence microscopy

Type of test:

Spectrometry (nephelometry)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
ADNase (anti-streptococcal DNase)	Serum	Nephelometry
C1-esterase inhibitor	Serum, plasma	Nephelometry
Immunoglobulin A (IgA)	Serum, plasma, liquor	Nephelometry
Immunoglobulin G (IgG)	Serum, plasma, liquor, urine	Nephelometry
Immunoglobulin M (IgM)	Serum, plasma, liquor	Nephelometry
Kappa light chains	Urine	Nephelometry
Complement factor C1q	Serum, plasma	Nephelometry
Complement factor C3c	Serum, plasma	Nephelometry
Complement factor C4	Serum, plasma	Nephelometry
Lambda light chains	Urine	Nephelometry
Rheumatoid factor	Serum, plasma	Nephelometry

Type of test:

Spectrometry (turbidimetry / immunoturbidimetry)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
ASL (anti-streptolysin-O)	Serum, plasma	Immunoturbidimetry
IgA (immunoglobulin A)	Serum, plasma	Immunoturbidimetry
IgG (immunoglobulin G)	Serum, plasma	Immunoturbidimetry
IgM (immunoglobulin M)	Serum, plasma	Immunoturbidimetry
IgD (immunoglobulin D)	Serum	Turbidimetry
IgG subclasses (IgG 1,2,3,4)	Serum	Turbidimetry
Light chains (kappa, lambda)	Serum	Turbidimetry

Medical laboratory field: Human genetics (human molecular genetics)

Type of test:

Molecular biological tests (amplification procedures)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
KHK/Sarkoidose (dbSNP rs1799752)	DNA from EDTA-, citrated-, heparin-blood	PCR, size-specific DNA fragment analysis in gel matrix, SSP-PCR
Narkolepsie: predisposition alleles HLA-DQB1*0602	DNA from EDTA-, citrated-, heparin-blood	PCR, size-specific DNA fragment analysis in gel matrix, SSP-PCR
Psoriasis: predisposition alleles HLA-Cw*06	DNA from EDTA-, citrated-, heparin-blood	PCR, size-specific DNA fragment analysis in gel matrix, SSP-PCR

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Analyt (Messgröße)	Untersuchungsmaterial (Matrix)	Untersuchungstechnik
Morbus Bechterew: HLA-B27-typing	DNA from EDTA-, citrated-, heparin-blood	PCR, melting point analysis of amplification products with intercalating stain
Thrombophilie (dbSNP rs1799963)	DNA from EDTA-, citrated-, heparin-blood	SNP, fluorescence marked hybridization probes (real-time PCR)
Thrombophilie (dbSNP rs6025)	DNA from EDTA-, citrated-, heparin-blood	SNP, fluorescence marked hybridization probes (real-time PCR)
Hereditäre Hämochromatose (dbSNP rs1799945, rs1800562, rs1800730)	DNA from EDTA-, citrated-, heparin-blood	SNP, fluorescence marked hybridization probes (real-time PCR)
Hepatitis C-Therapie (dbSNP rs12979860)	DNA from EDTA-, citrated-, heparin-blood	SNP, fluorescence marked hybridization probes (real-time PCR)
Lactose intolerance (dbSNP rs4988235)	DNA from EDTA-, citrated-, heparin-blood	SNP, fluorescence marked hybridization probes (real-time PCR)
Thrombophilie (dbSNP rs1799768)	DNA from EDTA-, citrated-, heparin-blood	SNP, fluorescence marked hybridization probes (real-time PCR)
Zöliakie: predisposition alleles DQ2, DQ8 und DR4	DNA from EDTA-, citrated-, heparin-blood	Fluoreszenz-markierte Hybridisierungssonden (Real-time PCR)
Hereditary fructose intolerance (dbSNP rs1800546, rs76917243, rs78340951)	DNA from EDTA-, citrated-, heparin-blood	PCR, line probe assay
Alpha-1-antitrypsin-deficiency (dbSNP rs6647, rs17580, rs28929474)	DNA from EDTA-, citrated-, heparin-blood	PCR, line probe assay
hypercholesterolemia (dbSNP rs429358, rs7412)	DNA from EDTA-, citrated-, heparin-blood	PCR, line probe assay
hypercholesterolemia (dbSNP rs5742904)	DNA from EDTA-, citrated-, heparin-blood	PCR, line probe assay
Hereditary hemochromatosis (dbSNP rs1799945, rs1800562, rs1800730)	DNA from EDTA-, citrated-, heparin-blood	PCR, line probe assay
Rheumatoid arthritis: HLA-DRB1-typing (shared epitope)	DNA from EDTA-, citrated-, heparin-blood	PCR, line probe assay
Lactose intolerance (dbSNP rs4988235)	DNA from EDTA-, citrated-, heparin-blood	PCR, line probe assay
Thrombophilie (dbSNP rs1801133, rs1801131)	DNA from EDTA-, citrated-, heparin-blood	PCR, line probe assay

Medical laboratory field: Microbiology

Type of test:

Agglutination tests**

Analyte (measurement parameter)	Test material (matrix)	Test technique
MRSA	Serum	Haemagglutination test (PBP2a SA Culture Colony Test)
Echinococcus granulosus AB	Serum	Haemagglutination test
Staphylococci AB ASTAL (antistaphylolysin)	Serum	Particle agglutination test
Candida antigen	Serum, liquor	Particle agglutination test
Haemophilus influenzae	Liquor, blood culture	Particle agglutination test
Lues cardiolipin AB	Serum, plasma	Particle agglutination test
Neisseria meningitidis	Pure culture	Particle agglutination test
Pneumococci	Pure culture	Particle agglutination test
Salmonella, Shigella	Pure culture	Particle agglutination test
Staphylococci	Pure culture	Particle agglutination test
Streptococci (group, membership)	Pure culture	Particle agglutination test
Treponema pallidum AB (TPHA)	Serum, plasma, liquor	Particle agglutination test

Type of test:

Bacterial, parasitic and fungal sensitivity testing

Analyte (measurement parameter)	Test material (matrix)	Test technique
Mycobacteria	culture material	proportion method, liquid culture
rapidly growing aerobic bacteria	culture material	Agar diffusion test (EUCAST)
rapidly growing aerobic bacteria	culture material	Bouillon dilution, turbidity measurement, fully automatic according to EUCAST
rapidly growing aerobic Gram-negative bacteria	culture material	Bouillon dilution according to EUCAST
anaerobic bacteria	culture material	gradient-test according to CLSI
challenging aerobic bacteria	culture material	gradient-test according to EUCAST or CLSI
yeast-like fungi	culture material	gradient-test according to EUCAST
yeast-like fungi	culture material	Bouillon dilution, turbidity measurement, fully automatic according to EUCAST
Screening for MRSA, VRE and MRGN	Original material (swabs, stool, urine)	growth on selective media
Oxacillin-resistance in Staphylococci	culture material	growth on antibiotic selective media
Detection of different resistance mechanisms	culture material	growth on selective media, Agar diffusion test, gradient-test according to EUCAST, lateral-flow-tests
Detection of broad-spectrum beta-laktamase (ESBL, AmpC)	culture material	Agar diffusion test

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Type of test:

Microbial differentiation / identification / genotyping**

Analyte (measurement parameter)	Test material (matrix)	Test technique
rapidly growing aerobic bacteria	culture material	Biochemical
Aerobic germs	culture material	Biochemical
Aerobic and anaerobic germs	culture material	MALDI-TOF-MS
yeast-like fungi	culture material	MALDI-TOF-MS
Mycoplasma hominis Ureaplasma ssp.	Swab: Vaginal, urethral, urine, stool, ejaculate newborns: Tracheal secretion	Biochemical
Salmonella, Shigella, Yersinia	Stool	Biochemical, Kligler, LIM,
human-pathogenic Fungi	culture material	Morphological

Type of test:

Cultural tests**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Aerobic germs	urine	culture process on non-selective and selective solid-/liquid-media, seminquantitativ enrichment, inhibitor Test
Mycoplasma hominis Ureaplasma ssp.	Swab: Vaginal, urethral, urine, ejaculate newborns: Tracheal secretion	culture process in selective media
Aerobic and anaerobic bacteria human-pathogenic Fungi	Blood Liquor	culture process in selective media (automated)
Salmonella, Shigella, Yersinia	Stool	culture process on non-selective and selective solid-/liquid-media
Campylobacter	Stool	culture process on selective media
Vibrio (Cholera)	Stool	culture process on selective media
EPEC	Stool	culture process on non-selective and selective solid-/liquid-media
EHEC	Stool	culture process on non-selective and selective solid-/liquid-media
Listeria	Stool	culture process on selective media
multiresistant pathogens	Stool, urine, Swab: throat, rectal, anal, groin	culture process on selective media
Aerobic bacteria human-pathogenic Fungi	vessel catheter	culture process on non-selective media seminquantitativ enrichment

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Analyte (measurement parameter)	Test material (matrix)	Test technique
human-pathogenic Fungi	skin swab, skin materials, materials of the respiratory tract, wound materials, primarily sterile materials, stool, urine, mucosal swabs	culture process on selective solid- and liquid-media
Aerobic and anaerobic bacteria Fungi	skin swab, skin materials, materials of the respiratory tract, wound materials, primarily sterile materials, stool, urine, mucosal swabs	culture process on non-selective and selective solid-/liquid-media
Anaerobic bacteria	materials of the respiratory tract, wound materials, primarily sterile materials, biopsies	culture process on non-selective and selective solid-/liquid-media
Streptococci	skin swab, materials of the respiratory tract, wound materials, primarily sterile materials, stool, urine, mucosal swabs	culture process on non-selective and selective solid-/liquid-media
Gardnerella vaginalis	Vaginal swabs, cervical swabs	culture process in selective solid media
CF-relevant pathogens	materials of the respiratory tract	culture process on non-selective and selective solid-/liquid-media
Helicobacter pylori	Stomach biopsy	culture process in selective solid-media
Corynebacteria	Throat, nose, wound and genital swab	culture process in selective solid-media
Aktinomyzetes and Nokardia	wound swab and respiratory secretions	culture process in selective solid-media
Legionella	materials of the respiratory tract	culture process in selective solid-media
Mycobacteria	secretions of the respiratory tract, Liquor, wound materials, primarily sterile materials, liquor, aspirates, stool, gastric juice, bone marrow, urine, ejaculate	culture process on non-selective and selective solid-/liquid-media liquid culture (automated)

Type of test:

Ligand assays**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Borrelia burgdorferi AB (IgG/IgM)	Serum, plasma, liquor	CLIA
Toxoplasma gondii AB (IgG/IgM)	Serum, plasma	CLIA
Treponema pallidum AB	Serum, plasma	CLIA
Toxoplasma gondii AB (IgG/IgM, IgG avidity)	Serum, plasma	ELFA
Aspergillus antigen	Serum, liquor, BAL	ELISA
Aspergillus fumigatus AK (IgG/IgM)	Serum, Plasma	ELISA
Bordetella pertussis toxin AB (IgA/IgG)	Serum, plasma	ELISA
Borrelia burgdorferi AB (IgM)	Liquor	ELISA
Brucella AB (IgG/IgM)	Serum, plasma	ELISA
Campylobacter antigen	Stool	ELISA
Campylobacter AB (IgA/IgG)	Serum, plasma	ELISA
Candida albicans AB (IgA/IgG/IgM)	Serum, plasma	ELISA
Chlamydia pneumoniae AB (IgA/IgG/IgM)	Serum	ELISA
Chlamydia trachomatis AB (IgA/IgG)	Serum	ELISA
Clostridium difficile antigen	Stool	ELISA
Diphtheria toxin AB (IgG)	Serum, plasma	ELISA
EHEC (verotoxin 1, 2)	Stool	ELISA
Echinococcus AB (IgG)	Serum, plasma	ELISA
Echinococcus multilocularis AB (IgG)	Serum	ELISA
Entamoeba histolytica antigen	Stool	ELISA
Entamoeba histolytica AB (IgG)	Serum, plasma	ELISA
Francisella tularensis AB (IgG/IgM)	Serum, plasma	ELISA
Giardia lamblia antigen	Stool	ELISA
Helicobacter pylori antigen	Stool	ELISA
Helicobacter pylori AB (IgA/IgG)	Serum, plasma	ELISA
Legionella pneumophila AB (IgG/IgM)	Serum, plasma	ELISA
Legionella pneumophila antigen	Urine	ELISA
Leishmania spp. AK (IgG)	Serum, plasma	ELISA
Leptospira AB (IgG/IgM)	Serum, plasma	ELISA
Mycoplasma pneumoniae AB (IgG/IgM)	Serum, plasma, liquor	ELISA
Plasmodium ssp. AB (IgG)	Serum, plasma	ELISA
Pseudomonas aeruginosa AB (IgG)	Serum	ELISA

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Analyte (measurement parameter)	Test material (matrix)	Test technique
Q fever (Coxiella burnetii) AB (IgG / IgM)	Serum, plasma	ELISA
Salmonella enterica AB (Screen/IgA)	Serum	ELISA
Schistosoma mansoni AB (IgG)	Serum, plasma	ELISA
Tetanus toxin AB (IgG)	Serum, plasma	ELISA
Toxocara AB (IgG)	Serum, plasma	ELISA
Trichinella spiralis AB (IgG)	Serum, plasma	ELISA
Yersinia AB (IgA/IgG)	Serum, plasma	ELISA
Malaria-Pathogen (rapid test)	EDTA-Blut	MEIA
Legionella pneumophila antigen	Urine	FIA
Borrelia burgdorferi AB (IgG/IgM)	Serum, plasma, liquor	Immunoblot (Western blot)
Chlamydia pneumoniae AB (IgA/IgG/IgM)	Serum, plasma	Immunoblot (Western blot)
Chlamydia psittaci AB (IgA/IgG/IgM)	Serum, plasma	Immunoblot (Western blot)
Chlamydia trachomatis AB (IgA/IgG/IgM)	Serum, plasma	Immunoblot (Western blot)
Echinococcus AB (IgG)	Serum, plasma	Immunoblot (Western blot)
Helicobacter pylori (IgG/IgM)	Serum, plasma	Immunoblot (Western blot)
Toxoplasma gondii AB (IgA/IgG/IgM/IgG avidity)	Serum, plasma	Immunoblot (Western blot)
Treponema pallidum AB (IgG/IgM)	Serum, plasma	Immunoblot (Western blot)
MRSA	Kulturmateriel	Lateral Flow Test, Immunochromatography (PBP2a SA Culture Colony Test)
Carbapenemase-producing gram-negative bacteria	Kulturmateriel	Lateral Flow Test, Immunochromatographie (carbapenemases rapid test)

Type of test:

Microscopy**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Mycobacteria	Wound swabs, liquor, aspirates, stool, secretions of the respiratory tract, gastric juice, bone marrow, ejaculate, urine, tissue samples (sample excision, skin)	direct fluorescence microscopy (auramin-staining)
Bartonella henselae AB (IgG/IgM)	Serum	Indirect immunofluorescence microscopy
Bartonella quintana AB (IgG/IgM)	Serum	Indirect immunofluorescence microscopy

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Analyte (measurement parameter)	Test material (matrix)	Test technique
Q fever (<i>Coxiella burnetii</i>) AB (IgG / IgM)	Serum	Indirect immunofluorescence microscopy
Mycobacteria	Wound swabs, liquor, aspirates, stool, secretions of the respiratory tract, gastric juice, bone marrow, ejaculate, urine, tissue samples (sample excision, skin) culture material	Kinyoun-staining
Coccidia	Stool	modified Kinyoun-staining
Bacteria and Fungi	culture material	modified Giemsa staining
<i>Treponema vincentii</i> (Angina Plaut-Vincent)	Throat and tonsils Swabs	Modifizierte Gramfärbung
Malaria direct detection	Blood	Giemsa staining
<i>Trichomonas vaginalis</i>	Woman: Vaginal, urethral swab, fresh urine (sediment of first portion) Man: Urethral secretion, fresh urine (sediment of first portion), secretion after prostate massage	Giemsa staining
Worm eggs, protozoa, worms and worm elements	Stool, duodenal secretion, urine spontaneously, worms, worm parts, ectoparasites	native without staining
Oxyurids	Anal film	native without staining

Type of test:

Molecular biological tests (amplification procedures)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Nontuberculous mycobacteria (NTM)	Swab, biopsy, tissue, culture material, lavage, liquor, gastric fluid, aspirate, secretion, sperm, sputum, urine	Nested PCR, size-specific DNA fragment analysis in gel matrix
<i>Mycobacterium tuberculosis</i>	Swab, biopsy, tissue, culture material, lavage, liquor, gastric fluid, aspirate, secretion, sperm, sputum, urine	Nested PCR, size-specific DNA fragment analysis in gel matrix, restriction enzyme digestion of amplicates with subsequent fragment analysis
Diphtheria toxin	Culture material	PCR, size-specific DNA fragment analysis in gel matrix
Toxic-shock-syndrome (<i>Staphylococcus aureus</i>)	Culture material	PCR, size-specific DNA fragment analysis in gel matrix
16s rDNA sequencing (bacteria)	Culture material	PCR, DNA sequencing
18s rDNA sequencing (fungi)	Culture material	PCR, DNA sequencing
<i>Burkholderia cepacia</i> complex (differentiation)	Culture material	PCR, DNA sequencing
Dermatophytes (ITS gene fragments)	Culture material	PCR, DNA sequencing

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Analyte (measurement parameter)	Test material (matrix)	Test technique
MRSA spa typing	Culture material	PCR, DNA sequencing
Anaplasma phagocytophilum	Citrated-, EDTA-blood, liquor	Real-time-PCR
Babesia spp.	Citrated-, EDTA-blood, liquor	Real-time-PCR
Bartonella henselae	Biopsies, citrated-, EDTA-blood	Real-time-PCR
Bartonella quintana	Biopsies, citrated-, EDTA-blood	Real-time-PCR
Bordetella parapertussis	Swabs, lavage, pharyngeal lavage, secretion, sputum	Real-time PCR
Bordetella pertussis	Swabs, lavage, pharyngeal lavage, secretion, sputum	Real-time PCR
Borrelia burgdorferi	Biopsy, citrated-, EDTA-blood,	Real-time PCR
Brucella spp.	Biopsy, citrated-, EDTA-blood, liquor, bone marrow, urine	Real-time-PCR
Carbapenemase-gene (KPC, OXA-48, GES, VIM, NDM, GIM, IMP) from Enterobacteria	Culture material	Real-time-PCR
Chlamydia pneumoniae	Swab, tissue, lavage, liquor, aspirate, secretion, sputum	Real-time PCR
Chlamydia trachomatis	Swab, aspirate, sperm, urine	Real-time PCR
Clostridium difficile toxin A, B	Stool	Real-time PCR
Coxiella burnetii	Swab, Biopsy, citrated-, EDTA-blood, aspirate, liquor, sputum	Real-time-PCR
Cryptococcus neoformans/gattii	Liquor	Real-time-PCR
EHEC (stx1, stx2)	Culture material	Real-time-PCR
EPEC (Dyspepsia coli, enteropathogenic E. coli)	Stool, culture material	Real-time PCR
Escherichia coli	Liquor	Real-time-PCR
Francisella tularensis	Swab, Biopsy, citrated-, EDTA-blood	Real-time-PCR
Haemophilus influenzae	Liquor	Real-time-PCR
Helicobacter pylori	culture material, Biopsy, gastric fluid	Real-time-PCR
Legionella pneumophila	Swab, BAL, culture material, liquor, sputum, secretion, urine	Real-time PCR
Leptospira interrogans	Biopsy, citrated-, EDTA-blood, liquor, sputum	Real-time-PCR
Listeria monocytogenes	liquor, tissue	Real-time PCR
mecC gene (Staphylococcus aureus)	Culture material	Real-time PCR
MRSA (methicillin-resistant Staphylococcus aureus)	Culture material swab (nose, throat, groin, axilla, hairline, wound)	Real-time PCR
Mycobacterium tuberculosis complex	Swab, culture material, citrated-, EDTA- blood, bone marrow, lavage, liquor, gastric fluid, aspirate, secretion, sperm, sputum, urine	Real-time PCR

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Analyte (measurement parameter)	Test material (matrix)	Test technique
Mycobacterium tuberculosis complex and rifampicin resistance	Sputum	Real-time PCR
Mycoplasma genitalium	Swab, aspirate, secretion, sperm,	Real-time PCR
Mycoplasma hominis	Swab, aspirate, secretion, sperm,	Real-time PCR
Mycoplasma pneumoniae	Swabs, lavage, pharyngeal lavage, secretion, sputum	Real-time PCR
Neisseria gonorrhoeae	Swab, sperm, urine	Real-time PCR
Neisseria meningitidis	Swab, EDTA blood, culture material, liquor	Real-time PCR
Nontuberculosis mycobacteria (NTM)	Swab, biopsy, tissue, lavage, liquor, gastric fluid, aspirate, secretion, sperm, sputum, urine	Real-time-PCR
Panton-Valentine leukocidin toxin (lukS gene) with Staphylococcus aureus or MRSA	Culture material	PCR, size-specific DNA fragment analysis in gel matrix
Pneumocystis jirovecii (carinii)	Swab, lavage, pharyngeal lavage, secretion, sputum	Real-time PCR
Rickettsia spp.	citrate-, EDTA- blood, liquor	Real-time-PCR
Streptococcus agalactiae	Liquor	Real-time-PCR
Streptococcus pneumoniae	Liquor	Real-time-PCR
Tropheryma whipplei	Biopsy, liquor	Real-time PCR
Ureaplasma urealyticum/parvum	Swab, aspirate, secretion, sperm, urine	Real-time PCR
Vancomycin resistance (enterococci A, B)	Culture material	Real-time PCR
Differentiation of Mycobacterium tuberculosis complex	Culture material	PCR, line probe assay
Helicobacter pylori and clarithromycin, fluoroquinolone resistance	Biopsy, culture material	PCR, line probe assay
Mycobacterium tuberculosis complex and fluoroquinolone, aminoglycoside, ethambutol resistance	Culture material	PCR, line probe assay
Mycobacterium tuberculosis complex and rifampicin, isoniazid resistance	Culture material	PCR, line probe assay
Detection of clinically most important mycobacteria	Culture material	PCR, line probe assay, DNA sequencing
NTM detection and resistance testing	Culture material	PCR, line probe assay, DNA sequencing
NTM species-specific differentiation	PCR product	DNA sequencing

Type of test:

Spektrometry (NIR-/IR-Spektrometry)

Analyte (measurement parameter)	Test material (matrix)	Test technique
Helicobacter pylori	Air / respiratory air	IR-Spektrometry

Type of test:

Cell function tests**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Mycobacterium tuberculosis Quantiferon test TB	Blood	Lymphocyte transformation test

Medical laboratory field: Virology

Type of test:

Agglutination tests**

Analyte (measurement parameter)	Test material (matrix)	Test technique
EBV (Epstein-Barr virus)	Serum, plasma	Particle agglutination test (quicktest)

Type of test:

Ligand assays**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Hepatitis A AB (HAV-IgG/IgM)	Serum, plasma	CLIA
Hepatitis Bc AB (anti-HBc-IgG/IgM)	Serum, plasma	CLIA
Hepatitis Be antigen (HBe-Ag)	Serum, plasma	CLIA
Hepatitis Be AB (anti-Hbe)	Serum, plasma	CLIA
Hepatitis Bs antigen (HBs-Ag)	Serum, plasma	CLIA
Hepatitis Bs AB (anti-HBs)	Serum, plasma	CLIA
Hepatitis C AB (HCV-IgG)	Serum, plasma	CLIA
Hepatitis D AK (Anti-HDV)	Serum, plasma	CLIA
HIV 1/2 AB, HIV p24 antigen	Serum, plasma	CLIA
EBV (Epstein-Barr virus) AB (VCA IgG/IgM/EBNA1-IgG)	Serum, plasma	CLIA
Parvovirus B19 AB (IgG/IgM)	Serum, plasma	CLIA
Rubella virus AB (IgG/IgM)	Serum, plasma	CLIA
Hepatitis Bc AB (anti-HBc-IgG/IgM)	Serum, plasma	CMIA
Hepatitis Bs antigen (HBs-Ag)	Serum, plasma	CMIA
Hepatitis C AB (HCV-IgG)	Serum, plasma	CMIA
Hepatitis Bs antigen (HBs-Ag)	Serum, plasma	ECLIA
HIV 1/2 AB, HIV p24 antigen	Serum, plasma	ECLIA

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Analyte (measurement parameter)	Test material (matrix)	Test technique
CMV (cytomegalovirus) AB (IgG/IgM/IgG avidity)	Serum	ELFA
Rubella virus AB (IgM)	Serum	ELFA
VZV (varizella zoster virus) AB (IgG)	Serum	ELFA
Adenovirus antigen	Stool	ELISA
Adenovirus AB (IgA/IgG)	Serum, plasma, liquor	ELISA
CMV (cytomegalovirus) AB (IgA/IgG/IgM)	Serum, plasma, liquor	ELISA
Dengue virus AB (IgG/IgM)	Serum	ELISA
Dengue virus NS1 antigen	Serum	ELISA
Enterovirus AB (IgG/IgM)	Serum, liquor	ELISA
FSME virus AB (IgG/IgM)	Serum, liquor	ELISA
HSV (herpes simplex virus) AB (IgA/IgG/IgM)	Serum, plasma, liquor	ELISA
Influenza A virus AB (IgA/IgG)	Serum, plasma	ELISA
Influenza B virus AB (IgA/IgG)	Serum, plasma	ELISA
Measles virus AB (IgG/IgM)	Serum, plasma, liquor	ELISA
Mumps virus AB (IgG/IgM)	Serum, plasma, liquor	ELISA
Rubella virus AB (IgG)	liquor	ELISA
Rotavirus antigen	Stool	ELISA
VZV (varicella zoster virus) AB (IgG/IgM/IgG avidity)	Serum, plasma, liquor	ELISA
Zika Virus AK (IgG/IgM)	Serum, plasma	ELISA
RSV antigen	Respiratory secretions, swabs	MEIA
Influenza A/B virus antigen	Respiratory secretions, swabs	FIA
CMV (cytomegalovirus) AB (IgA/IgG/IgM)	Serum, plasma	Immunoblot (Western blot)
EBV (Epstein-Barr virus) AB (IgA/IgG/IgM/IgG avidity)	Serum, plasma	Immunoblot (Western blot)
Hantavirus AB (IgG/IgM)	Serum, plasma	Immunoblot (Western blot)
Hepatitis C AB (HCV-IgG)	Serum, plasma	Immunoblot (Western blot)
HEV (hepatitis E virus) AB (IgG/IgM)	Serum, plasma	Immunoblot (Western blot)
HSV-1 (herpes simplex virus) AB (IgG)	Serum, plasma	Immunoblot (Western blot)
HSV-2 (herpes simplex virus) AB (IgG)	Serum, plasma	Immunoblot (Western blot)
Parvovirus B19 AB (IgG/IgM/IgG avidity)	Serum, plasma	Immunoblot (Western blot)
Sandfly fever virus AB (IgG/IgM)	Serum, plasma	Immunoblot (Western blot)

Type of test:

Molecular biological tests (amplification procedures)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Adenovirus (human)	Swab, citrated, EDTA blood, liquor, secretion, stool, urine	Real-time PCR
BK virus	Citrated, EDTA blood, serum, urine	Real-time PCR
Boca virus (human)	Swab, lavage, pharyngeal lavage, secretion, sputum	Real-time PCR
Cytomegalovirus (CMV)	EDTA, citrated blood, tissue, liquor, breast milk, secretion, stool, urine	Real-time PCR
Enterovirus	Biopsy, liquor, aspirate, pharyngeal lavage, throat swab, stool	Real-time PCR
Epstein-Barr virus	Swab, EDTA, citrate, heparin blood, liquor, plasma, serum	Real-time PCR
FSME-Virus	Citrated-, EDTA-blood, liquor	Real-time PCR
Hepatitis B virus (HBV)	Serum, plasma	Real-time PCR
Hepatitis C virus (HCV)	Serum, plasma	Real-time PCR
Herpes simplex virus type 1, type 2 (HSV 1, 2)	Swab, secretion, liquor	Real-time PCR
HHV-6	Liquor	Real-time PCR
HIV-1	Serum, plasma	Real-time PCR
Influenza virus (A, B, H1N1)	Swab, BAL, sputum, respiratory tract secretion	Real-time PCR
JC virus	Citrated-, EDTA-blood, liquor, serum, urine	Real-time PCR
Metapneumovirus (hMPV)	Swab, BAL, secretion, sputum	Real-time PCR
Norovirus	Stool	Real-time PCR
Respiratory syncytial virus (RSV)	Swab, secretion, sputum	Real-time PCR
Rhinovirus	Swab, secretion, BAL	Real-time PCR
Varizella zoster virus (VZV)	Swab, secretion, liquor	Real-time PCR
Hepatitis C virus genotyping (HCV)	PCR product	DNA sequencing

Type of test:

Molecular biological tests (hybridisation procedures)**

Analyte (measurement parameter)	Test material (matrix)	Test technique
Human papilloma virus DNA (HPV)	Swab, biopsies	Liquid-liquid DNA/DNA or RNA/DNA hybridisation

Medical laboratory field: Transfusion medicine / immunohaematology

Type of test:

Agglutination tests*

Analyte (measurement parameter)	Test material (matrix)	Test technique
Antigen determination Le(a), M	EDTA blood	Haemagglutination test
Antibody differentiation	EDTA blood	Haemagglutination test
Antibody screening	EDTA blood	Haemagglutination test
Antibody titre	EDTA blood	Haemagglutination test
Blood group	EDTA blood	Haemagglutination test
Direct Coombs test	EDTA blood	Haemagglutination test
Indirect Coombs test	EDTA blood	Haemagglutination test
Kell antigen	EDTA blood	Haemagglutination test
Rhesus factor D	EDTA blood	Haemagglutination test
Rhesus formula	EDTA blood	Haemagglutination test
Antibody differentiation	EDTA blood	Particle agglutination test
Antibody screening	EDTA blood	Particle agglutination test
Antibody titre	EDTA blood	Particle agglutination test
Blood group	EDTA blood	Particle agglutination test
Direct Coombs test	EDTA blood	Particle agglutination test
Indirect Coombs test	EDTA blood	Particle agglutination test
Kell antigen	EDTA blood	Particle agglutination test
Crossmatch	EDTA blood	Particle agglutination test
Rhesus formula	EDTA blood	Particle agglutination test