

Deutsche Akkreditierungsstelle GmbH

Annex to the accreditation certificate D-ML-13256-01-00 in accordance with DIN EN ISO 15189:2014

Valid from: 24.01.2022

Date of issue: 22.04.2022

Holder of certificate:

MVZ Labor Krone GbR

Locations:

Siemensstraße 40, 32105 Bad Salzuflen

Zum Haberland 56, 32051 Herford

Hindenburgstraße 56, 32257 Bünde

Tests in area:

Medical Laboratory Diagnostics

Test areas:

Clinical chemistry

Immunology

Human genetics (human molecular genetics)

Microbiology

Virology

Transfusion medicine

For the test areas marked with *, the laboratory is permitted to freely select standard test methods or equivalent methods without obtaining prior notification and consent from Deutsche Akkreditierungsstelle GmbH (DAkkS GmbH). For the test areas marked with **, the laboratory is permitted to modify and develop new test methods without obtaining prior notification and consent from Deutsche Akkreditierungsstelle GmbH.

The test methods listed are given by way of an example. The laboratory has an up-to-date list of all test methods within the flexible scope of accreditation.

The management system requirements of DIN EN ISO 15189 are written in the language relevant to the operations of medical laboratories. Laboratories that conform to the requirements of this standard operate generally in accordance with the principles of DIN EN ISO 9001.

The certificate together with the annex reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (DAkkS) at <https://www.dakks.de/en/accredited-bodies-search.html>

Bad Salzuflen location

Siemenstraße 40, 32105 Bad Salzuflen

Test area: Clinical chemistry

Type of test:

Chromatography (liquid chromatography-mass spectrometry (LC-MS/MS))**

Analyte (measurand)	Test material (matrix)	Test technique
10-OH-carbazepine (oxcarbazepine)	Serum	LC tandem mass spectrometry
Δ -9-tetrahydrocannabinol (THC)	Hair, citrate, EDTA, NaF plasma, serum, saliva	LC tandem mass spectrometry
11-hydroxy- Δ -9-tetrahydrocannabinol (11-OH-THC)	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
11-nor- Δ -9-tetrahydrocannabinol-9-carboxylic acid (THC-COOH)	Hair, citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
25-OH Vit. D ₂	Serum	LC tandem mass spectrometry
25-OH Vit. D ₃	Serum	LC tandem mass spectrometry
3-OH-bromazepam	Urine	LC tandem mass spectrometry
4-hydroxy-tamoxifen	Serum, plasma	LC tandem mass spectrometry
4-methyl-aminoantipyrine	Citrate plasma, serum	LC tandem mass spectrometry
6-MAM	Hair, saliva, urine	LC tandem mass spectrometry
7-aminoclonazepam	Serum, citrate, EDTA, NaF plasma	LC tandem mass spectrometry
7-aminoflunitrazepam	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
9-OH-risperidone	Serum	LC tandem mass spectrometry
Alprazolam	Hair, serum, citrate, EDTA, NaF plasma, saliva	LC tandem mass spectrometry
Amiodarone	Serum	LC tandem mass spectrometry
Amphetamine	Hair, saliva	LC tandem mass spectrometry
Amisulpride	Plasma, serum	LC tandem mass spectrometry
Aripiprazole	Serum	LC tandem mass spectrometry
Barbiturates (thiopental, phenobarbital, pentobarbital)	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Benzoyllecgonine	Hair, saliva	LC tandem mass spectrometry
Brivaracetam	Citrate plasma, serum	LC tandem mass spectrometry
Bromazepam	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Buprenorphine	Hair, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry

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Analyte (measurand)	Test material (matrix)	Test technique
Cannabidiol (CDB)	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Chlorprothixenes	Serum	LC tandem mass spectrometry
Citalopram	Citrate plasma, serum	LC tandem mass spectrometry
Clobazam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Clonazepam	Citrate, EDTA, NaF plasma, serum, saliva	LC tandem mass spectrometry
Clozapine	Serum	LC tandem mass spectrometry
Cocaethylene	Hair	LC tandem mass spectrometry
Cocaine	Hair, saliva	LC tandem mass spectrometry
Codeine	Hair, saliva, urine	LC tandem mass spectrometry
Cotinine	Urine	LC tandem mass spectrometry
Cyclosporine	EDTA blood	LC tandem mass spectrometry
Desalkylflurazepam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Desethylamiodarone	Serum	LC tandem mass spectrometry
Desmethylclobazam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Desmethylclozapine	Serum	LC tandem mass spectrometry
Desmethylflunitrazepam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Desmethyltramadol	Hair, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Desmethylvenlafaxine	Serum, plasma	LC tandem mass spectrometry
Diazepam	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Dihydrocodeine	Hair, saliva, urine	LC tandem mass spectrometry
Drug detection, semi-quantitative (cannabinoids, amphetamines/metamphetamines, cocaine, opiates, opioids, benzodiazepines, Z-substances)	Dried blood	LC tandem mass spectrometry
Duloxetine	Serum, plasma	LC tandem mass spectrometry
EDDP	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Emtricitabine	Dried blood	LC tandem mass spectrometry
Escitalopram	Citrate plasma, serum	LC tandem mass spectrometry
Ethyl glucuronide (EtG)	Hair, citrate, EDTA, NaF plasma, serum, dried blood, urine	LC tandem mass spectrometry
Everolimus	EDTA blood	LC tandem mass spectrometry
Felbamate	Citrate plasma, serum	LC tandem mass spectrometry
Fentanyl	Hair, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Flunitrazepam	Hair, citrate, EDTA, NaF plasma, serum, saliva	LC tandem mass spectrometry
Fluoxetine	Serum	LC tandem mass spectrometry
Flupentixol	Plasma, serum	LC tandem mass spectrometry
Fluphenazine	Plasma, serum	LC tandem mass spectrometry
Flupirtine	Plasma, serum	LC tandem mass spectrometry

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Analyte (measurand)	Test material (matrix)	Test technique
Flurazepam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Fluvoxamine	Citrate plasma, serum	LC tandem mass spectrometry
Gabapentin	Serum	LC tandem mass spectrometry
General Unknown Screening (over 1500 individual substances as per Waters Toxicology Library)	Serum, citrate, EDTA, NaF plasma, urine	Quadrupole Time-of-Flight (Q-TOF) LCMS
Haloperidol	Serum	LC tandem mass spectrometry
Hydroxyalprazolam	Citrate, EDTA, NaF plasma, serum, urine	LC tandem mass spectrometry
Hydroxybromazepam	Serum, citrate, EDTA, NaF plasma	LC tandem mass spectrometry
Hydroxyitraconazole	Plasma, serum	LC tandem mass spectrometry
Itraconazole	Plasma, serum	LC tandem mass spectrometry
Catecholamines (noradrenaline, adrenaline, dopamine)	EDTA plasma	LC tandem mass spectrometry
Ketamine	Hair, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Lacosamide	Plasma, serum	LC tandem mass spectrometry
Levetiracetam	Serum, plasma	LC tandem mass spectrometry
Levomepromazine	Serum	LC tandem mass spectrometry
Lorazepam	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Lormetazepam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Lysergic acid diethylamide (LSD)	Citrate, EDTA, NaF plasma, serum, urine	LC tandem mass spectrometry
MDA	Hair, saliva	LC tandem mass spectrometry
MDE	Hair, saliva	LC tandem mass spectrometry
MDMA	Hair, saliva	LC tandem mass spectrometry
Drug screening (antipsychotics, antidepressants, anticonvulsants)	Hair	LC tandem mass spectrometry
Metanephrines, normetanephrines	EDTA plasma	LC tandem mass spectrometry
Metanephrines / normetanephrines	Urine	LC tandem mass spectrometry
Methadone	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Methamphetamine	Hair, saliva	LC tandem mass spectrometry
Methylmalonic acid	Serum, urine	LC tandem mass spectrometry
Methylphenidate	Serum	LC tandem mass spectrometry
Midazolam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Mirtazapine	Serum	LC tandem mass spectrometry
Morphine	Hair, saliva, urine	LC tandem mass spectrometry
N-desmethyl-tamoxifen	Plasma, serum	LC tandem mass spectrometry
Nitrazepam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Norbuprenorphine	Hair, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry

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Analyte (measurand)	Test material (matrix)	Test technique
Norcocaine	Hair, saliva	LC tandem mass spectrometry
Norfluoxetine	Serum, citrate plasma	LC tandem mass spectrometry
Nordiazepam	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Norfentanyl	Hair, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Nortilidine	Hair, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Olanzapine	Serum	LC tandem mass spectrometry
Opipramol	Plasma, serum	LC tandem mass spectrometry
Oxazepam	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Oxycodone	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Paroxetine	Citrate plasma, serum	LC tandem mass spectrometry
Perampanel	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Perazine	Serum	LC tandem mass spectrometry
Phosphatidylethanol (PEth)	Dried blood	LC tandem mass spectrometry
Pipamperone	Serum	LC tandem mass spectrometry
Pregabalin	Serum	LC tandem mass spectrometry
Promethazine	Serum	LC tandem mass spectrometry
Psilocin	Urine	LC tandem mass spectrometry
Quetiapine	Serum	LC tandem mass spectrometry
Risperidone	Serum	LC tandem mass spectrometry
Ritalinic acid	Serum	LC tandem mass spectrometry
Rufinamide	Citrate plasma, serum	LC tandem mass spectrometry
Sertraline	Citrate plasma, serum	LC tandem mass spectrometry
Sirolimus	EDTA blood	LC tandem mass spectrometry
Stiripentol	Citrate plasma, serum	LC tandem mass spectrometry
Sultiame	Serum	LC tandem mass spectrometry
Synthetic cannabinoids (metabolites of AM-694, JWH-018, JWH-019, JWH-073, JWH-081, JWH-122, JWH-200, JWH-203, JWH-210, JWH-250, RCS-4, UR-144)	Urine	LC tandem mass spectrometry
Tacrolimus	EDTA blood	LC tandem mass spectrometry
Tamoxifen	Plasma, serum	LC tandem mass spectrometry
Temazepam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry
Tenofovir	Dried blood	LC tandem mass spectrometry
Tetrazepam	Citrate, EDTA, NaF plasma, serum	LC tandem mass spectrometry

Analyte (measurand)	Test material (matrix)	Test technique
Tilidine	Hair, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Topiramate	Serum	LC tandem mass spectrometry
Tramadol	Hair, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Venlafaxine	Serum, plasma	LC tandem mass spectrometry
Vigabatrin	Citrate plasma, serum	LC tandem mass spectrometry
Zaleplon	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Ziprasidone	Serum	LC tandem mass spectrometry
Zolpidem	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry
Zonisamide	Serum	LC tandem mass spectrometry
Zopiclone	Hair, citrate, EDTA, NaF plasma, serum, saliva, urine	LC tandem mass spectrometry

Type of test:
Chromatography (gas chromatography (GC, GC-MS, GC-MS/MS))**

Analyte (measurand)	Test material (matrix)	Test technique
1-butanol	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
1-Propanol	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
11-hydroxy- Δ -9-tetrahydrocannabinol (OH-THC)	Citrate, EDTA, NaF plasma, serum	GC-tandem mass spectrometry
Δ -9-tetrahydrocannabinol (THC)	Citrate, EDTA, NaF plasma, serum	GC-tandem mass spectrometry
11-nor- Δ -9-tetrahydrocannabinol-9-carboxylic acid (THC-COOH)	Citrate, EDTA, NaF plasma, serum	GC tandem mass spectrometry GC mass spectrometry
2-butanol	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
2-butanone	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
2-Propanol	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
2-methyl-1-butanol	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
2-methyl-1-propanol	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
3-methyl-1-butanol	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
6-MAM	Citrate, EDTA, NaF plasma, serum	GC-tandem mass spectrometry
Acetone	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
Alcohol (ethanol)	EDTA, NaF plasma, serum, whole blood,	GC headspace
Amphetamine	Citrate, EDTA, NaF plasma, serum, urine	GC-mass spectrometry
Benzoylcegonine	Citrate, EDTA, NaF plasma, serum, urine	GC tandem mass spectrometry GC mass spectrometry
Cannabidiol (CDB)	Serum, EDTA plasma, NaF plasma, citrate plasma	GC-tandem mass spectrometry
Cocaine	Citrate, EDTA, NaF plasma, serum	GC-tandem mass spectrometry
Codeine	Citrate, EDTA, NaF plasma, serum	GC-tandem mass spectrometry

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Analyte (measurand)	Test material (matrix)	Test technique
Dihydrocodeine	Citrate, EDTA, NaF plasma, serum	GC-tandem mass spectrometry
Ethyl glucuronide (EtG)	Hair	GC-tandem mass spectrometry
General Unknown Screening (approx. 3250 individual substances as per PMW-Pfleger/Maurer/Weber library)	Urine	GC-mass spectrometry
Hydromorphone	Serum, EDTA plasma, NaF plasma, citrate plasma	GC-tandem mass spectrometry
MDA	Citrate, EDTA, NaF plasma, serum, urine	GC-mass spectrometry
MDE	Citrate, EDTA, NaF plasma, serum, urine	GC-mass spectrometry
MDMA	Citrate, EDTA, NaF plasma, serum, urine	GC-mass spectrometry
Metamphetamine	Citrate, EDTA, NaF plasma, serum, urine	GC-mass spectrometry
Methanol	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
Methyl butanol	Citrate, EDTA, NaF plasma, serum	GC-mass spectrometry
Morphine	Citrate, EDTA, NaF plasma, serum	GC-tandem mass spectrometry
γ-hydroxy butyric acid	Serum, citrate, EDTA, NaF plasma, urine	GC-tandem mass spectrometry

Type of test:

Chromatography (high performance liquid chromatography (HPLC-UV/VIS detection, HPLC detection)**

Analyte (measurand)	Test material (matrix)	Test technique
5-hydroxyindoleacetic acid (5-HIES)	Urine	High performance liquid chromatography with fluorescence detector
Amitriptyline	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Carbamazepine	Citrate plasma, serum	High performance liquid chromatography with UV/VIS detector
Carbamazepine epoxide	Citrate plasma, serum	High performance liquid chromatography with UV/VIS detector

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Analyte (measurand)	Test material (matrix)	Test technique
CDT	Serum	High performance liquid chromatography with UV/VIS detector
Clomipramine	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Caffeine	Serum	High performance liquid chromatography with UV/VIS detector
Desipramine	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Desmethylclomipramine	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Desmethyldoxepin	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Desmethyl maprotiline	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Desmethylnormetazepam	Citrate plasma, serum	High performance liquid chromatography with UV/VIS detector
Doxepine	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Ethosuximide	Citrate plasma, serum	High performance liquid chromatography with UV/VIS detector
Flecainide	Serum, plasma	High performance liquid chromatography with UV/VIS detector
HbA1c	EDTA blood	High performance liquid chromatography with UV/VIS detector
Ibuprofen	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Imipramine	Plasma, serum	High performance liquid chromatography with UV/VIS detector

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Analyte (measurand)	Test material (matrix)	Test technique
Catecholamines (noradrenaline, adrenaline, dopamine)	Urine	High performance liquid chromatography with UV/VIS detector
Maprotiline	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Nortriptyline	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Paracetamol	Serum	High performance liquid chromatography with UV/VIS detector
Phenobarbital	Citrate plasma, serum	High performance liquid chromatography with UV/VIS detector
Porphyrine	Urine	High performance liquid chromatography with fluorescence detector
Primidone	Citrate plasma, serum	High performance liquid chromatography with UV/VIS detector
Propafenone	Citrate plasma, serum	High performance liquid chromatography with UV/VIS detector
Serotonin	EDTA plasma, serum, platelets	High performance liquid chromatography with fluorescence detector
Trimipramine	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Tricyclic antidepressants	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Vanillylmandelic acid	Urine	High performance liquid chromatography with fluorescence detector
Vitamin A	Serum	High performance liquid chromatography with UV/VIS detector
Vitamin B1	EDTA blood	High performance liquid chromatography with fluorescence detector
Vitamin B2	EDTA blood	High performance liquid chromatography with fluorescence detector

Analyte (measurand)	Test material (matrix)	Test technique
Vitamin B6	EDTA plasma, serum	High performance liquid chromatography with fluorescence detector
Vitamin C	Plasma, serum	High performance liquid chromatography with UV/VIS detector
Vitamin E	Serum	High performance liquid chromatography with UV/VIS detector

Type of test:

Flow cytometry (including particle property determination)*

Analyte (measurand)	Test material (matrix)	Test technique
Complete blood count (including reticulocytes)	EDTA blood	Resistance measurement principle Pulse height summation Photometric measurement Flow cytometry
Blood count	EDTA blood	Resistance measurement principle Pulse height summation Photometric measurement Flow cytometry

Type of test:

Electrochemical tests *

Analyte (measurand)	Test material (matrix)	Test technique
Chloride	Li-heparin plasma, serum, urine	Potentiometric ion-selective electrodes Indirect multi-sensor technology
Potassium	Li-heparin plasma, serum, urine	Potentiometric ion-selective electrodes Indirect multi-sensor technology
Sodium	Li-heparin plasma, serum, urine	Potentiometric ion-selective electrodes Indirect multi-sensor technology

Type of test:

Coagulometry*

Analyte (measurand)	Test material (matrix)	Test technique
APC resistance (activated protein C resistance)	Citrate plasma	Optical detection procedure
Factor II activity	Citrate plasma	Optical detection procedure
Factor V activity	Citrate plasma	Optical detection procedure
Factor VII activity	Citrate plasma	Optical detection procedure
Factor VIII activity	Citrate plasma	Optical detection procedure
Factor IX activity	Citrate plasma	Optical detection procedure

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Analyte (measurand)	Test material (matrix)	Test technique
Factor X activity	Citrate plasma	Optical detection procedure
Factor XI activity	Citrate plasma	Optical detection procedure
Factor XII activity	Citrate plasma	Optical detection procedure
Fibrinogen	Citrate plasma	Optical detection procedure
Lupus anticoagulant activity (lupus-sensitive aPTT, DRVVT)	Citrate plasma	Optical detection procedure
Partial thromboplastin time (PTT)	Citrate plasma	Optical detection procedure
Quick / INR	Citrate plasma	Optical detection procedure
Thrombin time	Citrate plasma	Optical detection procedure

Type of test:
Ligand assays**

Analyte (measurand)	Test material (matrix)	Test technique
17-OH progesterone	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
17- β -oestradiol (E2)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Adrenocorticotrophic hormone (ACTH)	EDTA plasma	Electrochemiluminescence immunoassay
Aldosterone	Plasma, serum, urine	Chemiluminescence immunoassay
Alpha-1-fetoprotein	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Amphetamines	Citrate, EDTA, NaF plasma, serum	Enzyme linked immunosorbent
Amphetamines	Urine	CEDIA
Amphetamines	Hair, urine	Enzyme linked immunosorbent assay
Androstenedione	EDTA plasma, serum	Chemiluminescence immunoassay
Anti-Müller hormone	Li-heparin plasma, serum	Electrochemiluminescence immunoassay
Barbiturates (thiopental, phenobarbital, pentobarbital)	Urine	CEDIA
Benzodiazepine	Citrate, EDTA, NaF plasma, serum	Enzyme linked immunosorbent assay
Benzodiazepine	Urine	CEDIA
Benzodiazepine	Hair, urine	Enzyme linked immunosorbent assay
CA125	EDTA, Li-heparin, NaF, plasma, serum	Chemiluminescence immunoassay
CA15-3	EDTA, Li-heparin, NaF, plasma, serum	Chemiluminescence immunoassay
CA19-9	EDTA, Li-heparin, NaF, plasma, serum	Chemiluminescence immunoassay
Calcitonin	Serum	Chemiluminescence immunoassay
Cannabinoids	Citrate, EDTA, NaF plasma, serum	Enzyme linked immunosorbent assay
Cannabinoids	Urine	DRI
Cannabinoids	Hair, urine	Enzyme linked immunosorbent assay

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Analyte (measurand)	Test material (matrix)	Test technique
CEA	EDTA, Li-heparin, NaF, plasma, serum	Chemiluminescence immunoassay
CH 50	Serum	Enzyme linked immunosorbent assay
Chromogranin A	Serum	Immunofluorescence assay
CKMB (mass)	EDTA, Li-heparin plasma, serum	Electrochemiluminescence immunoassay
Cocaine	Citrate, EDTA, NaF plasma, serum	Enzyme linked immunosorbent assay
Cocaine	Hair, urine	Enzyme linked immunosorbent assay
Cocaine (benzoylecgonine)	Urine	CEDIA
Copeptin	EDTA, Li-heparin plasma, serum	Immunofluorescence assay
Cortisol	EDTA, Li-heparin plasma, serum, urine	Chemiluminescence immunoassay
Cortisol, free	Saliva	Enzyme linked immunosorbent assay
C-peptide	Citrate, Li-heparin plasma, serum, urine	Chemiluminescence immunoassay
CYFRA 21-1	EDTA, Li-heparin, NaF plasma, serum	Chemiluminescence immunoassay
Dehydroepiandrosterone sulphate (DHEA-S)	Li-heparin plasma, serum	Chemiluminescence immunoassay
Diamine oxidase (DAO)	Citrate, EDTA, Li-heparin plasma, serum	Radioimmunoassay
Elastase, pancreatic	Serum	Enzyme linked immunosorbent assay
Erythropoietin	Serum	Enzyme linked immunosorbent assay
Ethyl glucuronide (EtG)	Urine	Cloned enzyme donor immunoassay
Eosinophil cationic protein (ECP)	Plasma, serum	Fluoroenzyme immunoassay
Ferritin	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Follicle stimulating hormone (FSH)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Free β -human chorionic gonadotropin (HCG)	Serum	Immunofluorescence assay
Folic acid	EDTA blood, erythrocytes, Li-heparin plasma, serum	Chemiluminescence immunoassay
HE-4 (human epididymis protein 4)	Serum	Chemiluminescence immunoassay
Holotranscobalamin	Serum	Chemiluminescence immunoassay
Homocysteine	EDTA, Li-heparin, NaF plasma, serum	Chemiluminescence immunoassay

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Analyte (measurand)	Test material (matrix)	Test technique
Human growth hormones (HGH=STH)	Serum	Chemiluminescence immunoassay
Human chorionic gonadotropin (HCG)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Human chorionic gonadotropin (HCG)	EDTA, Li-heparin plasma, serum	Electrochemiluminescence immunoassay
Insulin	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Insulin like growth factor binding protein 3 (IGFBP-3)	Plasma, serum	Chemiluminescence immunoassay
Insulin like growth factor-1 (IGF-1)	Plasma, serum	Chemiluminescence immunoassay
Lamotrigine	Plasma, serum	Enzym multiplied immunoassay
Levetiracetam	Plasma, serum	Enzym multiplied immunoassay
Luteinizing hormone (LH)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Lysozyme	Cerebrospinal fluid, serum, urine	Enzyme linked immunosorbent assay
Methadone	Citrate, EDTA, NaF plasma, serum	Enzyme linked immunosorbent assay
Methadone	Hair, urine	Enzyme linked immunosorbent assay
Methadone	Urine	CEDIA
Mycophenolic acid	EDTA plasma	Enzym multiplied immunoassay
Myoglobin	EDTA, Li-heparin plasma, serum	Electrochemiluminescence immunoassay
NT-proBNP	EDTA, Li-heparin plasma, serum	Electrochemiluminescence immunoassay
Oestron	EDTA plasma, serum	Radioimmunoassay
Opiates	Citrate, EDTA, NaF plasma, serum	Enzyme linked immunosorbent assay
Opiates	Urine	DRI
Opiates	Hair, urine	Enzyme linked immunosorbent assay
PAPP-A	Serum	Immunofluorescence assay
Parathyroid hormone (PTH) intact	Serum, Li-heparin plasma	Chemiluminescence immunoassay
Phenobarbital	Plasma, serum	Enzym multiplied immunoassay
Phenytoin (5,5-diphenylhydantoin)	Plasma, serum	Enzym multiplied immunoassay
Placenta growth factor (PIGF)	Serum	Electrochemiluminescence immunoassay
Procalcitonin	EDTA, heparin plasma, serum	Chemiluminescence immunoassay
Pregabalin	Urine	Enzym multiplied immunoassay
Progesterone	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay

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Analyte (measurand)	Test material (matrix)	Test technique
Procollagen III peptide (PIIIP)	Plasma, serum	Radioimmunoassay
Prolactin	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Prostate-specific antigen (PSA), free	Serum	Chemiluminescence immunoassay
Prostate-specific antigen (PSA), total	Serum	Chemiluminescence immunoassay
Renin	EDTA plasma	Chemiluminescence immunoassay
SCC	EDTA, Li-heparin, NaF plasma, serum	Chemiluminescence immunoassay
Sexual hormone binding globulin (SHBG)	Li-heparin plasma, serum	Chemiluminescence immunoassay
Soluble fms-like tyrosine kinase-1 (sFlt-1)	Serum	Electrochemiluminescence immunoassay
Testosterone	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Thyroglobulin	EDTA, Li-heparin plasma, serum	Electrochemiluminescence immunoassay
Thyroid stimulating hormone (TSH)	Plasma, serum	Chemiluminescence immunoassay
Thyroxine (T4), free	Plasma, serum	Chemiluminescence immunoassay
Triiodothyronine (T3), free	Plasma, serum	Chemiluminescence immunoassay
Tissue polypeptide antigen (TPA)	Serum	Chemiluminescence immunoassay
Tricyclic antidepressants	Citrate, EDTA, NaF plasma, serum	Enzyme linked immunosorbent assay
Tricyclic antidepressants	Urine	Enzym multiplied immunoassay
Troponin I-hs	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Tryptase	Plasma, serum	Fluoroenzyme immunoassay
Valproic acid	Plasma, serum	Enzym multiplied immunoassay
Vitamin B12	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Vitamin D (1,25-(OH) ₂)	Serum	Chemiluminescence immunoassay
Vitamin D (25-OH)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay

Type of test:

Microscopy**

Analyte (measurand)	Test material (matrix)	Test technique
Differential blood count	EDTA blood	Microscopy
Spermogram	Ejaculate	Microscopy
Urine sediment (cellular components)	Urine	Microscopy

Type of test:

Osmometry*

Analyte (measurand)	Test material (matrix)	Test technique
Osmolality	Serum, Li-heparin plasma, urine	Freezing point depression

Type of test:

Spectrometry (atomic absorption spectroscopy (AAS))**

Analyte (measurand)	Test material (matrix)	Test technique
Aluminium	Li-heparin plasma, serum, urine	Zeeman graphite tube technology
Lead	EDTA blood	Zeeman graphite tube technology
Cadmium	EDTA blood, serum, urine	Zeeman graphite tube technology
Calcium	EDTA plasma	Flame AAS
Chromium	EDTA blood, serum, urine	Zeeman graphite tube technology
Free copper	Serum	Zeeman graphite tube technology
Copper	EDTA, heparin plasma, serum, urine	Zeeman graphite tube technology
Manganese	EDTA blood	Zeeman graphite tube technology
Magnesium	EDTA blood	Flame AAS
Mercury	Urine	Hydride AAS
Selenium	EDTA blood	Zeeman graphite tube technology
Zinc	EDTA blood, EDTA, heparin plasma, serum, urine	Flame AAS

Type of test:

Spectrometry (immunoturbidimetry)**

Analyte (measurand)	Test material (matrix)	Test technique
Antistreptolysin	Serum	Immunoturbidimetric test
D-dimers	Citrate plasma	Immunoturbidimetric test
Protein S, free	Citrate plasma	Immunoturbidimetric test
Haemoglobin (iFOBT)	Stool	Immunoturbidimetric test
Lipoprotein (a)	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test
Rheumatoid factor	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test
von Willebrand factor antigen	Citrate plasma	Immunoturbidimetric test
von Willebrand factor activity	Citrate plasma	Immunoturbidimetric test

Type of test:

Spectrometry (inductively coupled plasma-mass spectrometry (ICP-MS))**

Analyte (measurand)	Test material (matrix)	Test technique
Arsenic	EDTA blood, serum, urine	ICP mass spectrometry
Lead	EDTA blood, urine	ICP mass spectrometry
Cadmium	EDTA blood, serum, urine	ICP mass spectrometry
Chromium	EDTA blood, serum, urine	ICP mass spectrometry
Cobalt	EDTA blood, serum, urine	ICP mass spectrometry
Iron	Urine	ICP mass spectrometry

Analyte (measurand)	Test material (matrix)	Test technique
Copper	Serum, urine	ICP mass spectrometry
Magnesium	EDTA blood	ICP mass spectrometry
Manganese	EDTA blood, serum, urine	ICP mass spectrometry
Molybdenum	Serum, urine	ICP mass spectrometry
Nickel	EDTA blood, serum, urine	ICP mass spectrometry
Mercury	EDTA blood, urine	ICP mass spectrometry
Selenium	EDTA blood, serum, urine	ICP mass spectrometry
Thallium	Serum, urine	ICP mass spectrometry
Zinc	EDTA blood, serum, urine	ICP mass spectrometry

Type of test:

Spectrometry (NIR / IR spectroscopy) *

Analyte (measurand)	Test material (matrix)	Test technique
Concrement analysis	Stone material	Infrared spectroscopy

Type of test:

Spectrometry (nephelometry)*

Analyte (measurand)	Test material (matrix)	Test technique
Albumin	Cerebrospinal fluid, EDTA, Li-heparin plasma, serum, urine	Nephelometry

Type of test:

Spectrometry (UV/VIS photometry)**

Analyte (measurand)	Test material (matrix)	Test technique
Albumin	EDTA, Li-heparin plasma, serum	Photometric colour test
Alkaline phosphatase	Li-heparin plasma, serum	Photometric colour test
Alcohol (ethanol)	EDTA, NaF plasma, serum, whole blood	Photometric colour test
Ammonia	EDTA, heparin plasma	Photometric colour test
Amylase	Li-heparin plasma, serum, urine	Photometric colour test
Anti-factor Xa activity	Citrate plasma	Photometric method
Antithrombin activity	Citrate plasma	Photometric method
Bilirubin, direct	Li-heparin plasma, serum	Photometric colour test
Bilirubin, total	EDTA, Li-heparin plasma, serum	Photometric colour test
ESR (erythrocyte sedimentation rate)	EDTA blood	Capillary micro-photometry
Bromide	Serum	Photometric colour test
C1-esterase activity	Citrate plasma	Photometric method
Calcium	Li-heparin plasma, serum, urine	Photometric colour test
Cholesterol, total	EDTA, Li-heparin plasma, serum	Photometric colour test
CK	Li-heparin plasma, serum	Photometric colour test
Creatinine	Urine	Photometric colour test
Creatinine	EDTA, Li-heparin plasma, serum	Photometric colour test
Creatinine (enzymatic)	Li-heparin plasma, serum	Photometric colour test

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Analyte (measurand)	Test material (matrix)	Test technique
Delta aminolevulinic acid	Urine	Photometric colour test
Iron	Li-heparin plasma, serum	Photometric colour test
Factor XIII activity	Citrate plasma	Photometric method
Free haemoglobin	Plasma, serum	Photometric colour test
γ -GT (γ -glutamyl transferase)	EDTA, Li-heparin plasma, serum	Photometric colour test
Total protein	Cerebrospinal fluid, EDTA, Li-heparin plasma, serum, urine	Photometric colour test
Total porphyrins	Urine	Photometric colour test
GOT (AST = aspartate aminotransferase)	Li-heparin plasma, serum	Photometric colour test
GPT (ALT = alanine aminotransferase)	EDTA, Li-heparin plasma, serum	Photometric colour test
Glucose-6-phosphate dehydrogenase	EDTA blood	Photometric colour test
Glucose	Cerebrospinal fluid, NaF plasma, serum, urine,	Photometric colour test Ion sensitive electrode
GLDH	EDTA, Li-heparin plasma, serum	Photometric colour test
Uric acid	EDTA, Li-heparin plasma, serum	Photometric colour test
Urea	EDTA, Li-heparin plasma, serum	Photometric colour test
HBDH	Li-heparin plasma, serum	Photometric colour test
HDL	Li-heparin plasma, serum	Photometric colour test
Lactate	NaF plasma, cerebrospinal fluid	Photometric colour test
LDH	Li-heparin plasma, serum	Photometric colour test
LDL	Li-heparin plasma, serum	Photometric colour test
Lipase	EDTA, Li-heparin plasma, serum	Photometric colour test
Lithium	Plasma, serum	Photometric colour test
Magnesium	Li-heparin plasma, serum, urine	Photometric colour test
Methaemoglobin	EDTA blood	Photometric colour test
phosphorus	Li-heparin plasma, serum, urine	Photometric colour test
Plasminogen activity	Citrate plasma	Photometric method
Porphobilinogen	Urine	Photometric colour test
Protein C activity	Citrate plasma	Photometric method
Pseudocholinesterase	Li-heparin plasma, serum	Photometric colour test
Acid phosphatase	Serum	Photometric colour test
Triglycerides	EDTA, Li-heparin plasma, serum	Photometric colour test

Type of test:

Spectrometry (reflectometry)*

Analyte (measurand)	Test material (matrix)	Test technique
Urine status	Urine	Photometric colour test

Test area: Immunology

Type of test:

Flow cytometry*

Analyte (measurand)	Test material (matrix)	Test technique
Lymphocyte differentiation	EDTA blood	Flow cytometry

Type of test:

Electrophoresis*

Analyte (measurand)	Test material (matrix)	Test technique
CK-isoenzymes	Serum	Electrophoresis
Haemoglobin electrophoresis - HBA, HBF, HBA2, HBS	EDTA blood	Electrophoresis
Immunofixation (IgA, IgM, IgG, IgE, IgD, kappa and lambda light chains)	Serum, urine	Electrophoresis, immunofixation
Immunotyping (IgA, IgG, IgM, kappa and lambda light chains)	Serum	Electrophoresis
Oligoclonal bands Immunoglobulins	Cerebrospinal fluid, serum	Electrophoresis, immunofixation
Serum protein electrophoresis: Albumin, alpha-1-globulins, alpha-2-globulins, beta-1-globulins and gamma-globulins	Serum	Electrophoresis
Transferrin (β 2-)	Cerebrospinal fluid	Electrophoresis, immunofixation

Type of test:

Ligand assays**

Analyte (measurand)	Test material (matrix)	Test technique
Acetylcholine receptor antibodies	Serum, plasma	Radioimmunoassay
Annexin V IgG antibodies	Serum	Enzyme linked immunosorbent assay
Antibodies against voltage-gated potassium channels	Serum	Radioimmunoassay
Antibodies against muscle-specific receptor tyrosine kinase (anti-MuSK)	Serum	Radioimmunoassay
Anti-MAG antibodies	Citrate, EDTA, Li-heparin plasma, serum	Immunoblot
Anti-thyroglobulin antibodies (TgAb)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Anti-TPO antibodies (MAb)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Beta-2-glycoprotein IgG and IgM antibodies	Citrate, EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay

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Analyte (measurand)	Test material (matrix)	Test technique
Beta-amyloid 1-40	Cerebrospinal fluid	Chemiluminescence enzyme immunoassay
Beta-amyloid 1-42	Cerebrospinal fluid	Chemiluminescence enzyme immunoassay
Cardiolipin IgG and IgM antibodies	Citrate, EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay
Ganglioside antibodies (GM1, GM2, GM3, GD1a, GD1b, GT1b, GQ1b)	Citrate, EDTA, Li-heparin plasma, serum	Immunoblot
Circulating immune complexes containing IgG (C1q, C3d)	Serum	Enzyme linked immunosorbent assay
Immunoglobulin E, total	EDTA, Li-heparin plasma, serum	Fluoroenzyme immunoassay
Insulin IgG autoantibodies	Serum	Radioimmunoassay
Soluble interleukin-2 receptor	Serum	Enzyme linked immunosorbent assay
Neural antibodies (amphiphysin, CV2, GAD65, Hu, Ma1, Ma2, Ri, SOX1, Tr, Yo, Zic4)	Cerebrospinal fluid, plasma, serum	Immunoblot
Neural antibodies (Amphiphysin, CV2, GAD65, Hu, Ma2, Ri, recoverin, SOX1, titin, Tr, Yo, Zic4)	Cerebrospinal fluid, citrate, EDTA, Li-heparin, NaF plasma, serum	Immunoblot
Myositis blot (Mi-2 α , Mi-2 β , TIF1 γ , MDA5, NXP2, SAE1, Ku, PM-Scl100, PM-Scl75, Jo-1, SRP, PL-7, PL-12, EJ, OJ, Ro-52)	Serum, plasma	Immunoblot
Specific IgE	Plasma, serum	Fluoroenzyme immunoassay
Specific IgG	EDTA, Li-heparin plasma, serum	Fluoroenzyme immunoassay
TSH receptor antibodies (TRAb)	Serum	Electrochemiluminescence immunoassay

Type of test:

Microscopy**

Analyte (measurand)	Test material (matrix)	Test technique
Antibodies against epidermal basement membrane	Plasma, serum	Immunofluorescence test
Antibodies against heart muscle	Plasma, serum	Immunofluorescence test
Antibodies against striated skeletal muscles	Plasma, serum	Immunofluorescence test
Antibodies against prickle cell desmosomes	Plasma, serum	Immunofluorescence test

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Analyte (measurand)	Test material (matrix)	Test technique
Neural antibodies (AMPA2, ARHGAP26, AQUAP4, CASPR1, CASPR2, contactin 1, DPPX, GABAA, GABAB, GAD65, GFAP, GLYR, homer 3, IgLON5, ITPR1, LGI1, MAG, mGluR1, mGluR5, neurochondrin, neurofascin 155, neurofascin 186, NMDAR, PURK)	Cerebrospinal fluid, citrate, EDTA, heparin plasma, serum	Immunofluorescence test
MOG antibodies	Cerebrospinal fluid, plasma, serum	Live cell assay with indirect immunofluorescence

Type of test:

Spectrometry (immunoturbidimetry)*

Analyte (measurand)	Test material (matrix)	Test technique
C3 complement	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test
C4 complement	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test
C-reactive protein (CRP)	Plasma, serum, puncture specimens	Immunoturbidimetric test
Sensitive C-reactive protein (CRP)	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test
Cystatin C	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test
IgA	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test
IgG	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test
IgM	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test
Transferrin	EDTA, Li-heparin plasma, serum	Immunoturbidimetric test

Type of test:

Spectrometry (nephelometry)*

Analyte (measurand)	Test material (matrix)	Test technique
Alpha-1-antitrypsin	EDTA, Li-heparin plasma, serum	Nephelometry
Alpha-1 ceruloplasmin	Li-heparin plasma, serum	Nephelometry
Alpha -1-microglobulin	Urine	Nephelometry
Alpha-2-macroglobulin	Urine	Nephelometry
DNase B	Serum	Nephelometry
Beta-2-microglobulin	EDTA, Li-heparin plasma, serum	Nephelometry
C1 esterase inhibitor protein	Serum	Nephelometry
Haptoglobin	EDTA, Li-heparin plasma, serum	Nephelometry
IgG subclass 1	EDTA, Li-heparin plasma, serum	Nephelometry
IgG subclass 2	EDTA, Li-heparin plasma, serum	Nephelometry
IgG subclass 3	EDTA, Li-heparin plasma, serum	Nephelometry
IgG subclass 4	EDTA, Li-heparin plasma, serum	Nephelometry
Immunoglobulin A (IgA)	Cerebrospinal fluid, EDTA, Li-heparin plasma, serum, urine	Nephelometry
Immunoglobulin G (IgG)	Cerebrospinal fluid, EDTA, Li-heparin plasma, serum, urine	Nephelometry

Analyte (measurand)	Test material (matrix)	Test technique
Immunoglobulin M (IgM)	Cerebrospinal fluid, EDTA, Li-heparin plasma, serum, urine	Nephelometry
Kappa chain	Serum, urine	Nephelometry
Kappa chain, free	Plasma, serum, urine	Nephelometry
Lambda chain	Serum, urine	Nephelometry
Lambda chain, free	Plasma, serum, urine	Nephelometry
Soluble transferrin receptor	Li-heparin plasma, serum	Nephelometry
Transferrin	Urine	Nephelometry

Test area: Human genetics (human molecular genetics)

Type of test:

Molecular biological tests (amplification procedures)**

Analyte (measurand)	Test material (matrix)	Test technique
DPYD	EDTA blood, DNA from blood	ARMS
DPYD (4 mutations)	EDTA blood	PCR and Sanger sequencing
Familial breast and ovarian cancer (BRCA1 and BRCA2 gene)	EDTA blood, DNA from blood	PCR and Sanger sequencing
Factor II mutation (A19911G)	Citrate blood, EDTA blood	PCR and Sanger sequencing
Factor V mutation Leiden	Citrate blood, EDTA blood, mucosal swabs	Real-time PCR by melting point determination
Fructose intolerance	Citrate blood, EDTA blood, mucosal swabs	PCR and Sanger sequencing
Haemochromatosis (HFE gene) (C282Y and H63D)	Citrate blood, EDTA blood	PCR and sequencing
Haemochromatosis (HFE gene) (C282Y and H63D)	Citrate blood, EDTA blood	Real-time PCR
HLA-B27 allele	Citrate blood, EDTA blood	PCR and gel electrophoresis
HLA-B27 allele	Citrate blood, EDTA blood	Real-time PCR
HLA-B57 allele subtype B5701	Citrate blood, EDTA blood	PCR and gel electrophoresis
HLA-B57 allele subtype B5701	Citrate blood, EDTA blood	Real-time PCR
HLA typing	Citrate blood, EDTA blood	PCR and sequencing
IL28B polymorphisms (rs12980275, rs12979860, rs8099917)	Citrate blood, EDTA blood, mucosal swabs	PCR and Sanger sequencing
IL risk allele	Citrate blood, EDTA blood, mucosal swabs	PCR and Sanger sequencing
JAK-2 mutation	Citrate blood, EDTA blood, mucosal swabs	PCR and Sanger sequencing
Lactose intolerance (C13910T)	Citrate blood, EDTA blood, mucosal swabs	PCR and Sanger sequencing

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Analyte (measurand)	Test material (matrix)	Test technique
Lactose intolerance (C13910T)	Citrate blood, EDTA blood, mucosal swabs	Real-time PCR
MTHFR (C677T and A1298C)	Citrate blood, EDTA blood	PCR and Sanger sequencing
MTHFR (C677T and A1298C)	Citrate blood, EDTA blood	Real-time PCR
PAI 4G/5G (plasminogen activator inhibitor) polymorphism	Citrate blood, EDTA blood	PCR and Sanger sequencing
PAI 4G/5G (plasminogen activator inhibitor) polymorphism	Citrate blood, EDTA blood	Real-time PCR
Prothrombin mutation	Citrate blood, EDTA blood, mucosal swabs	Real-time PCR by melting point determination
Celiac disease-associated alleles (HLA-DQ2 and HLA-DQ8)	Citrate blood, EDTA blood	Real-time PCR
ZPI (ARG67 STOP)	Citrate blood, EDTA blood	PCR and Sanger sequencing
Ataxia-teleangiectasia (SOPHiA Genetics Custom Hereditary Cancer Panel (36 genes) ATM)	EDTA blood, DNA from blood	Sequence capture (SOPHiA GENETICS), sequencing by synthesis (Illumina, MiSeq), Sophia DDM from Sophia Genetics Version 5.10.10
Familial breast and ovarian cancer (SOPHiA Genetics Custom Hereditary Cancer Panel (36 genes) BRCA1, BRCA2, CHEK2, PALB2, RAD51C)	EDTA blood, DNA from blood	Sequence capture (SOPHiA GENETICS), sequencing by synthesis (Illumina, MiSeq), Sophia DDM from Sophia Genetics Version 5.10.10
Familial breast and ovarian cancer (SOPHiA Genetics Custom Hereditary Cancer Panel (36 genes) BARD1, BRCA1, BRCA2, BRIP1, CHEK2, ATM, CDH1, PALB2, RAD51C, RAD51D, SKT11, TP53)	EDTA blood, DNA from blood	Sequence capture (SOPHiA GENETICS), sequencing by synthesis (Illumina, MiSeq), Sophia DDM from Sophia Genetics Version 5.10.10
Hereditary pancreatic cancer (SOPHiA Genetics Custom Hereditary Cancer Panel (36 genes) ATM, BRCA1, BRCA2, CDKN2A, PALB2, STK11)	EDTA blood, DNA from blood	Sequence capture (SOPHiA GENETICS), sequencing by synthesis (Illumina, MiSeq), Sophia DDM from Sophia Genetics Version 5.10.10

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Analyte (measurand)	Test material (matrix)	Test technique
Hereditary prostate cancer (SOPHiA Genetics Custom Hereditary Cancer Panel (36 genes) BRCA1, BRCA2, CHEK2, HOXB13, PALB2, RAD51D)	EDTA blood, DNA from blood	Sequence capture (SOPHiA GENETICS), sequencing by synthesis (Illumina, MiSeq), Sophia DDM from Sophia Genetics Version 5.10.10
Li-Fraumeni syndrome (SOPHiA Genetics Custom Hereditary Cancer Panel (36 genes) TP53)	EDTA blood, DNA from blood	Sequence capture (SOPHiA GENETICS), sequencing by synthesis (Illumina, MiSeq), Sophia DDM from Sophia Genetics Version 5.10.10
LYNCH syndrome/HNPCC (SOPHiA Genetics Custom Hereditary Cancer Panel (36 genes) MLH1, MSH2, MSH6, PMS2)	EDTA blood, DNA from blood	Sequence capture (SOPHiA GENETICS), sequencing by synthesis (Illumina, MiSeq), Sophia DDM from Sophia Genetics Version 5.10.10
Polyposis syndrome (SOPHiA Genetics Custom Hereditary Cancer Panel (36 genes) APC, MUTYH, NTHL1, POLD1, POLE, STK11)	EDTA blood, DNA from blood	Sequence capture (SOPHiA GENETICS), sequencing by synthesis (Illumina, MiSeq), Sophia DDM from Sophia Genetics Version 5.10.10
Detection of copy number variants (SOPHiA Genetics Custom Hereditary Cancer Panel (36 genes))	EDTA blood, DNA from blood	Sequence capture (SOPHiA GENETICS), sequencing by synthesis (Illumina, MiSeq), Sophia DDM from Sophia Genetics Version 5.10.10
APC gene	EDTA blood, DNA from blood	MLPA
ATM gene	EDTA blood, DNA from blood	MLPA
BARD1 gene	EDTA blood, DNA from blood	MLPA
BRCA1 gene	EDTA blood, DNA from blood	MLPA
BRCA2 gene	EDTA blood, DNA from blood	MLPA
BRIP1 gene	EDTA blood, DNA from blood	MLPA
CDH1 gene	EDTA blood, DNA from blood	MLPA
CDKN2A gene	EDTA blood, DNA from blood	MLPA
CHEK2 gene	EDTA blood, DNA from blood	MLPA
EPCAM gene	EDTA blood, DNA from blood	MLPA
MLH1 gene	EDTA blood, DNA from blood	MLPA
MSH2 gene	EDTA blood, DNA from blood	MLPA
MSH6 gene	EDTA blood, DNA from blood	MLPA
MUTYH gene	EDTA blood, DNA from blood	MLPA
PALB2 gene	EDTA blood, DNA from blood	MLPA
PMS2 gene	EDTA blood, DNA from blood	MLPA
PTEN gene	EDTA blood, DNA from blood	MLPA
RAD50 gene	EDTA blood, DNA from blood	MLPA

Analyte (measurand)	Test material (matrix)	Test technique
RAD51C gene	EDTA blood, DNA from blood	MLPA
RAD51D gene	EDTA blood, DNA from blood	MLPA
STK11 gene	EDTA blood, DNA from blood	MLPA
TP53 gene	EDTA blood, DNA from blood	MLPA

Test area: Microbiology

Type of test:

Agglutination tests**

Analyte (measurand)	Test material (matrix)	Test technique
Staphylococci (anti-staphylolysin)	Serum	Latex agglutination test
Aspergillus antibodies	Serum	Indirect haemagglutination
Candida antigen	Cerebrospinal fluid, serum	Latex agglutination test
Syphilis reagent antibodies (lipoid antibodies)	Cerebrospinal fluid, plasma, serum	Carbon microparticle agglutination test
Treponema pallidum antibodies (TPPA)	Cerebrospinal fluid, plasma, serum	Particle agglutination

Type of test:

Ligand assays*

Analyte (measurand)	Test material (matrix)	Test technique
Bordetella pertussis IgG	Plasma, serum	Enzyme linked immunosorbent assay
Bordetella pertussis toxin IgA, IgG	Plasma, serum	Enzyme linked immunosorbent assay
Borrelia IgG, IgM	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Borrelia IgG (VLSE)	Cerebrospinal fluid, plasma, serum	Chemiluminescence immunoassay
Borrelia IgG, IgM	Plasma, serum	Immunoblot
Brucella IgA, IgM, IgG	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Campylobacter IgA, IgG	Plasma, serum	Enzyme linked immunosorbent assay
Candida IgA, IgM, IgG	Plasma, serum	Enzyme linked immunosorbent assay
Chlamydia trachomatis IgA, IgG	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Chlamydia trachomatis IgG	Citrate, citrate-phosphate-dextrose, Li-heparin plasma, serum	Immunoblot
Chlamydophila pneumoniae IgA, IgG, IgM	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay

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Analyte (measurand)	Test material (matrix)	Test technique
CXCL13	Cerebrospinal fluid	Enzyme linked immunosorbent assay
Diphtheria toxin IgG antibodies	Plasma, serum	Enzyme linked immunosorbent assay
Helicobacter IgA, IgG	Plasma, serum	Enzyme linked immunosorbent assay
Legionella IgG, IgM	Plasma, serum	Enzyme linked immunosorbent assay
Leptospira IgG, IgM	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Soluble interleukin-2 receptor	Serum	Enzyme linked immunosorbent assay
Mycoplasma pneumoniae IgA, IgM	Plasma, serum	Enzyme linked immunosorbent assay
Mycoplasma pneumoniae IgG	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Mycobacterium tuberculosis	Li-heparin blood	Enzyme linked immunosorbent assay- QuantiFERON-TB Gold PLUS
Salmonella (IgA, IgG, IgM)	Serum	Enzyme linked immunosorbent assay
Syphilis antibodies	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Tetanus toxoid antibodies	Plasma, serum	Enzyme linked immunosorbent assay
Toxoplasmosis IgG, IgM	EDTA plasma, Li-heparin plasma, serum	Chemiluminescence immunoassay
Toxoplasmosis IgG	Citrate, citrate-phosphate-dextrose, Li-heparin plasma, serum	Immunoblot
Toxoplasmosis IgG (avidity)	Citrate, citrate-phosphate-dextrose, Li-heparin plasma, serum	Immunoblot
Treponema pallidum IgG, IgM	Cerebrospinal fluid, plasma, serum	Immunoblot
Yersinia IgA, IgG	Plasma, serum	Enzyme linked immunosorbent assay

Type of test:

Microscopy*

Analyte (measurand)	Test material (matrix)	Test technique
Bartonella henselae IgG, IgM	Plasma, serum	Immunofluorescence test
Treponema pallidum IgG, IgM (FTA test)	Cerebrospinal fluid, plasma, serum	Immunofluorescence test

Type of test:

Molecular biological tests (amplification procedures)**

Analyte (measurand)	Test material (matrix)	Test technique
Aspergillus fumigatus	Swabs, culture material, secretions	Real-time PCR
Aspergillus terreus	Swabs, culture material, secretions	Real-time PCR
Bacteria typing	Microbiological culture material, puncture specimen	PCR and sequencing
Bordetella pertussis/ parapertussis	Swabs, aspirates, bronchial lavage, sputum	Real-time PCR
Borrelia burgdorferi, garinii, afzelii	Biopsies, cerebrospinal fluid, puncture specimens	PCR and gel electrophoresis, real-time PCR
Borrelia burgdorferi sensu lato	Biopsies, cerebrospinal fluid, puncture specimens	Real-time PCR
Candida albicans	Swabs, culture material, secretions	PCR and chip electrophoresis Real-time PCR
Candida dubliniensis	Swabs, culture material, secretions	PCR and chip electrophoresis Real-time PCR
Candida glabrata	Swabs, culture material, secretions	PCR and chip electrophoresis Real-time PCR
Candida guilliermondii	Swabs, culture material, secretions	PCR and chip electrophoresis
Candida krusei	Swabs, culture material, secretions	PCR and chip electrophoresis
Candida krusei	Swabs, culture material, secretions	Real-time PCR
Candida lusitanae	Swabs, culture material, secretions	Real-time PCR
Candida parapsilosis	Swabs, culture material, secretions	PCR and chip electrophoresis
Candida parapsilosis	Swabs, culture material, secretions	Real-time PCR
Candida tropicalis	Swabs, culture material, secretions	PCR and chip electrophoresis Real-time PCR
Chlamydophila pneumoniae	Swabs, aspirates, bronchial lavage, secretions, sputum	Real-time PCR
Chlamydia trachomatis	Swabs, ejaculate, cerebrospinal fluid, puncture specimens, urine	Transcription-mediated amplification Real-time-PCR
Clostridium difficile toxin B	Vomit, gastric juice	Real-time PCR
Haemophilus influenza	Swab, aspirate, bronchial lavage, secretion, sputum	Real-time PCR
Haemophilus ducreyi	Swab	Real-time PCR
Helicobacter pylori	Stool suspension	Real-time PCR
Legionella pneumophila	Bronchial lavage, secretions, sputum, urine	Real-time PCR
Listeria monocytogenes	Cerebrospinal fluid, blood	Real-time PCR
Lymphogranuloma venereum	Swab	Real-time PCR
Methicillin-resistant Staphylococcus	Swabs, bacteria suspension	Real-time PCR
Methicillin-resistant Staphylococcus (protein A typing)	Bacteria suspension, culture material	PCR and sequencing

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Analyte (measurand)	Test material (matrix)	Test technique
Mycobacterium tuberculosis	Bronchial lavage, cerebrospinal fluid, gastric juice, irritant sputum, sputum	Real-time PCR
Mycoplasma genitalium	Swabs, ejaculate, puncture specimens, secretions, urine	Real-time PCR Transcription-mediated amplification
Mycoplasma genitalium azithromycin resistance	Swab, ejaculate, puncture specimen, secretion, urine	Real-time PCR
Mycoplasma hominis	Swab, ejaculate, puncture specimen, secretions, urine	Real-time PCR
Mycoplasma pneumoniae	Swabs, aspirates, bronchial lavage, secretions, sputum	Real-time PCR
Neisseria gonorrhoeae	Swabs, ejaculate, puncture specimens, urine	Transcription-mediated amplification Real-time-PCR
Panton-Valentine leukozidin toxin	Culture suspension	Real-time PCR
Periodontitis germs	Paper points	Multiplex PCR and reverse hybridisation
Fungus typing	Swabs, secretion, culture material	PCR and sequencing
Pneumocystis jirovecii	Bronchial lavage, secretions, sputum	Real-time PCR
Ureaplasma parvum	Swabs, ejaculate, puncture specimens, secretions, urine	Real-time PCR
Ureaplasma urealyticum	Swabs, ejaculate, puncture specimens, secretions, urine	Real-time PCR
Streptococcus pneumoniae	Smear, aspirate, secretion, bronchial lavage, sputum	Real-time PCR
Treponema pallidum	Swabs, biopsies, EDTA, amniotic fluid, cerebrospinal fluid, serum	PCR and gel electrophoresis Real-time PCR
Trichomonas vaginalis	Swabs, ejaculate, urine	Real-time PCR Transcription-mediated amplification
Verotoxin-producing enterohaemorrhagic E.coli (EHEC)	Culture material, bacteria suspension	Real-time PCR

Type of test:

Spectrometry (NIR / IR spectrometry) *

Analyte (measurand)	Test material (matrix)	Test technique
Helicobacter pylori	Breathing air	Infrared isotope analysis

Test area: Virology

Type of test:

Ligand assays*

Analyte (measurand)	Test material (matrix)	Test technique
Adenovirus IgA, IgG	Plasma, serum	Enzyme linked immunosorbent
Cytomegaly IgG	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent
Cytomegaly IgG, IgG avidity, IgM	Li-heparin plasma, EDTA plasma, serum	Chemiluminescence immunoassay
Cytomegaly IgG	Plasma, serum	Immunoblot
EBV antibodies (VCA, EA, EBNA) IgG	Citrate, citrate-phosphate-dextrose, Li-heparin plasma, serum	Immunoblot
Enterovirus IgA, IgM	Plasma, serum	Enzyme linked immunosorbent assay
Enterovirus IgG	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Epstein-Barr virus IgG	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Epstein-Barr virus IgG, IgM, EBNA-1 IgG,	Citrate, EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
FSME IgG, IgM	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Hanta virus IgG, IgM	Citrate, citrate-phosphate-dextrose, Li-heparin plasma, serum	Immunoblot
HBs antigens (qualitative and quantitative)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
HBs antigen confirmation test (hepatitis B surface antigen)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Hepatitis A IgG, IgM antibodies (anti-HAV IgG, IgM)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Hepatitis B core IgG, IgM antibodies (anti-HBc IgG, IgM)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Hepatitis B core IgG	Citrate, EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Hepatitis-B-e-antigen (HBe antigen)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Hepatitis B e-antibodies (anti-HBe)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Hepatitis B surface antibodies (anti-HBs)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Hepatitis C antibodies (HCV)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Hepatitis C antibodies IgG	Citrate, citrate-phosphate-dextrose, Li-heparin plasma, serum	Immunoblot
Hepatitis D IgG, IgM	Plasma, serum	Chemiluminescence immunoassay

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Analyte (measurand)	Test material (matrix)	Test technique
Hepatitis E IgM	Citrate, citrate-phosphate-dextrose, Li-heparin plasma, serum	Immunoblot
Hepatitis-E IgG	EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay
Hepatitis E IgM	EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay
Herpes IgG	EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay
Herpes IgG (AI)	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Herpes IgM	Citrate plasma, EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay
HIV antibodies (HIV 1, 2, O)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
HIV antibodies (HIV 1, 2, O)	Citrate, EDTA, Li-heparin plasma, serum	Immunoblot
Human T-lymphotropic virus (rHTLV I/II)	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Influenza A/B IgA, IgG	Plasma, serum	Enzyme linked immunosorbent assay
Measles IgG	EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay
Measles IgG (AI)	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay
Measles IgM	Plasma, serum	Enzyme linked immunosorbent assay
Mumps IgG	EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay
Mumps IgG (AI)	Cerebrospinal fluid, serum	Enzyme linked immunosorbent assay
Mumps IgM	Citrate plasma, EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay
p24 antigen	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Parainfluenza virus IgA, IgG	Plasma, serum	Enzyme linked immunosorbent assay
Parvovirus B19 IgG, IgM	Citrate plasma, EDTA, Li-heparin plasma, serum	Enzyme linked immunosorbent assay
Parvovirus B19 IgG, IgM	Citrate, citrate-phosphate-dextrose, Li-heparin plasma, serum	Immunoblot
Rubella virus IgG (AI)	Cerebrospinal fluid, serum, Plasma	Enzyme linked immunosorbent assay
Rubella virus IgG	EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay
Rubella virus IgG, IgM	Citrate plasma, EDTA, Li-heparin plasma, serum	Chemiluminescence immunoassay

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Analyte (measurand)	Test material (matrix)	Test technique
SARS-CoV-2 IgG	Citrate, EDTA, Li-heparin plasma, serum	ECLIA
SARS-CoV-2 NCP IgG	Citrate, EDTA, Li-heparin plasma, serum	ECLIA
SARS-CoV-2 S IgG	Dried blood	Enzyme linked immunosorbent assay
SARS-CoV-2 NCP IgG	Dried blood	Enzyme linked immunosorbent assay
Varicella IgA, IgM	Citrate plasma, Li-heparin plasma, EDTA plasma, serum	Enzyme linked immunosorbent assay
Varicella IgG	Citrate plasma, Li-heparin plasma, EDTA plasma, serum	Chemiluminescence immunoassay
Varicella IgG	Cerebrospinal fluid, plasma, serum	Enzyme linked immunosorbent assay

Type of test:

Microscopy**

Analyte (measurand)	Test material (matrix)	Test technique
Herpes-6 (HHV6) IgG, IgM	Cerebrospinal fluid, plasma, serum	Immunofluorescence test

Type of test:

Molecular biological tests (amplification procedures)**

Analyte (measurand)	Test material (matrix)	Test technique
Adenovirus	Aspirates, swabs, bronchial lavage, EDTA plasma, cerebrospinal fluid, puncture specimens, secretions, serum, sputum, stool, stool	Real-time PCR
Astrovirus	Stool suspension	Real-time PCR
BK virus (qualitative)	Swabs, puncture specimens, urine	Real-time PCR
BK virus (quantitative)	EDTA plasma, cerebrospinal fluid, serum	Real-time PCR
Cytomegalovirus (qualitative)	Swab, aspirates, bronchial lavage, amniotic fluid, breast milk, puncture specimens, stool, urine	Real-time PCR
Cytomegalovirus (quantitative)	Cerebrospinal fluid, EDTA plasma, serum,	Real-time PCR
Enterovirus	Swabs, aspirates, bronchial lavage, EDTA plasma, cerebrospinal fluid, secretions, serum, sputum, stool	Real-time PCR
Epstein-Barr virus (qualitative)	Puncture specimens	Real-time PCR
Epstein-Barr viruse (quantitativ)	Swabs, cerebrospinal fluid, EDTA plasma, serum	Real-time PCR
Hepatitis B genotyping	Plasma, serum	PCR and sequencing

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Analyte (measurand)	Test material (matrix)	Test technique
Hepatitis B resistance	Plasma, serum	PCR and sequencing
Hepatitis B virus DNA (HBV DNA quantitative)	EDTA plasma, serum	Transcription-mediated amplification
Hepatitis C viral load (HCV RNA quantitative)	EDTA plasma, serum	Transcription-mediated amplification
Hepatitis C genotyping	EDTA plasma, serum	Sequencing after RT PCR
Hepatitis D virus (HDV-RNA quantitative)	Serum, EDTA blood	Real-time PCR
Hepatitis E virus (HEV-RNA qualitative)	Serum, EDTA blood, stool	Real-time PCR
Herpes simplex type 1, 2 (qualitative)	Swabs, ejaculate, puncture specimens, urine,	Real-time PCR
Herpes simplex type 1, 2 (quantitative)	Cerebrospinal fluid, EDTA plasma, serum	Real-time PCR
HIV-1 viral load (HIV RNA quantitative)	EDTA plasma, serum	Transcription-mediated amplification
HIV-1 resistance (integrase)	EDTA plasma, serum	RT PCR and sequencing
HIV-1 resistance (tropism)	EDTA plasma, serum	RT PCR and sequencing
HIV-1 resistance (protease reverse transcriptase)	Cerebrospinal fluid, plasma, serum	RT PCR and sequencing
Human papillomavirus genotypes (high risk HPV)	Swabs, ejaculate, urine	Real-time PCR
Human papillomavirus genotyping	Swabs, ejaculate, tissue sections, urine	RT nested PCR and sequencing
Influenza A, B including subtype	Swab, aspirates, bronchial lavage, bronchial secretion, nasopharyngeal aspirate, secretions, sputum, tracheal secretion	Real-time PCR
JC virus (qualitative)	Swabs, aspirates, puncture specimens, urine	Real-time PCR
JC virus (quantitative)	Cerebrospinal fluid, EDTA plasma, serum	Real-time PCR
Metapneumovirus	Swabs, aspirates, bronchial lavage, secretions, sputum	Real-time PCR
Norovirus	Stool suspension	Real-time PCR
Parainfluenza virus	Swab, aspirates, bronchial lavage, secretions, sputum	Real-time PCR
Parvovirus B19	Cerebrospinal fluid, plasma, serum	Real-time PCR
Respiratory syncytial virus	Swabs, aspirates, bronchial lavage, secretions, sputum	Real-time PCR
Rhinoviruses	Swabs, aspirates, bronchial lavage, sputum	Real-time PCR

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Analyte (measurand)	Test material (matrix)	Test technique
Rotavirus	Stool suspension	Real-time PCR
Sapovirus	Stool suspension	Real-time PCR
SARS-CoV-2	Swabs, aspirates, bronchial lavage, secretions, sputum	Real-time PCR
Varicella zoster virus (qualitative)	Swab, ejaculate, puncture specimen, urine	Real-time PCR
Varizella zoster virus (quantitative)	Cerebrospinal fluid, EDTA plasma, serum	Real-time PCR
Zika virus	EDTA plasma, ejaculate, serum, urine	Real-time PCR

Test area: Transfusion medicine

Type of test:

Agglutination tests*

Analyte (measurand)	Test material (matrix)	Test technique
ABO blood groups	EDTA blood, native blood	Hemagglutination
Antibody differentiation	EDTA plasma, serum	Hemagglutination
Antibody screening procedure	EDTA plasma, serum	Hemagglutination
Direct Coombs test	EDTA blood	Direct antiglobulin test
Rhesus factor	EDTA blood, native blood	Hemagglutination
Rhesus subgroups	EDTA blood, native blood	Hemagglutination

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Herford location

Zum Haberland 56, 32051 Herford

Test area: Immunology

Type of test:

Ligand assays*

Analyte (measurand)	Test material (matrix)	Test technique
Calprotectin	Stool	Enzyme immunoassay
Lactoferrin	Stool	Enzyme immunoassay
Elastase	Stool	Enzyme immunoassay

Test area: Microbiology

Type of test:

Agglutination tests**

Analyte (measurand)	Test material (matrix)	Test technique
E. coli (K1)	Cerebrospinal fluid	Latex agglutination test
Enterococci	Culture material	Latex agglutination test
Haemophilus influenzae type B	Cerebrospinal fluid	Latex agglutination test
Neisseria meningitis (Gr.A,B,C,Y/W 135)	Cerebrospinal fluid	Latex agglutination test
Salmonella	Culture material	Gruber agglutination test
Shigella	Culture material	Gruber agglutination test
Staphylococci	Culture material	Latex agglutination test
Streptococcus agalactiae	Cerebrospinal fluid	Latex agglutination test
Streptococcus pneumoniae	Cerebrospinal fluid	Latex agglutination test
Streptococci	Culture material	Latex agglutination test
Yersinia	Culture material	Gruber agglutination test

Type of test:

Sensitivity testing of bacteria**

Analyte (measurand)	Test material (matrix)	Test technique
Aerococci	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised or agar diffusion test
Actinomycetes	Single colonies, pure culture	Agar diffusion test

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Analyte (measurand)	Test material (matrix)	Test technique
Anaerobes	Single colonies, pure culture	Broth dilution test (MIC: break point), ATB
Bacilli	Single colonies, pure culture	Agar diffusion test
Campylobacter	Single colonies, pure culture	Agar diffusion test
Corynebacteria	Single colonies, pure culture	Agar diffusion test
Enterobacteriaceae	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised
Enterococci	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised or agar diffusion test
Haemophilus spp.	Single colonies, pure culture	Agar diffusion test
Helicobacter pylori	Single colonies, pure culture	Gradient diffusion test, MIC determination
Listeria	Single colonies, pure culture	Agar diffusion test
Moraxella catarrhalis	Single colonies, pure culture	Agar diffusion test
Neisseria	Single colonies, pure culture	Agar diffusion test or gradient diffusion test, MIC determination
Pasteurella	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised or agar diffusion test
Pseudomonas and non-fermenters	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised or ATB
Salmonella	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised or Gradient diffusion test, MIC determination
Shigella	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised
Staphylococcus, MRSA	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised or agar diffusion test
Streptococci	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised or agar diffusion test

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Analyte (measurand)	Test material (matrix)	Test technique
Vibrio	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised
Yersinia	Single colonies, pure culture	Broth dilution method as minimum inhibitory concentration (MIC) fully mechanised

Type of test:

Microbial differentiation / identification / genotyping**

Analyte (measurand)	Test material (matrix)	Test technique
Actinomycetes	Single colonies, pure culture	Morphological Biochemical • Complex • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Anaerobes	Single colonies, pure culture	Morphological Biochemical • Complex • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Bacilli	Single colonies, pure culture	Morphological Biochemical • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Campylobacter	Single colonies, pure culture	Morphological Biochemical • Complex • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)

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Analyte (measurand)	Test material (matrix)	Test technique
Corynebacteria	Single colonies, pure culture	Morphological Biochemical • Complex • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Dermatophytes	Single colonies, pure culture	Morphological Biochemical • simple
Enterobacteria	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Gardnerella vaginalis	Single colonies, pure culture	Morphological
Haemophilus spp.	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Helicobacter pylori	Single colonies, pure culture	Morphological Biochemical • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Legionella	Single colonies, pure culture	Morphological Biochemical • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Listeria	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)

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Analyte (measurand)	Test material (matrix)	Test technique
Moraxella catarrhalis	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Neisseria	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Pasteurella	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Pseudomonas and non-fermenters	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Salmonella	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)

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Analyte (measurand)	Test material (matrix)	Test technique
Moulds	Single colonies, pure culture	Morphological
Shigella	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting
Yeast-like fungi	Single colonies, pure culture	Morphological Biochemical • Complex Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Staphylococcus, MRSA	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Streptococci, enterococci, aerococci	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Vibrio	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)
Yersinia	Single colonies, pure culture	Morphological Biochemical • Complex • Simple • Orienting Mass spectrometric pathogen differentiation (MALDI-TOF-MS)

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**Type of test:
Cultural tests****

Analyte (measurand)	Test material (matrix)	Test technique
Actinomycetes	Swabs, blood culture (partially mechanised), biopsy material, bladder puncture urine, bronchial lavage, pus, ejaculate, bile, IUD, puncture specimens, secretions, sputum	Non-specific and specific culture methods, in aerobic, anaerobic or CO ₂ atmosphere, in liquid and on solid media
Anaerobes	Swabs, bladder puncture urine, blood culture (partially mechanised), biopsy material, bile, material from the lower respiratory tract, material from the urogenital tract	Non-specific and specific culture methods, in anaerobic atmosphere, in liquid and on solid media
Bacilli	Swabs, blood culture (partially mechanised), bronchial lavage, ejaculate, puncture specimens, secretions, sputum, stool, urine	Non-specific culture methods, in aerobic atmosphere, in liquid and on solid media
Campylobacter	Swabs, blood culture (partially mechanised), colon biopsy, secretions, stool	Non-specific and specific culture methods, in microaerophilic atmosphere, on solid media
Corynebacteria	Swabs, blood culture (partially mechanised), material from the respiratory tract, Redon and catheter tips, urine	Non-specific and specific culture methods, in aerobic atmosphere, in liquid and on solid media
Dermatophytes	Nails, dander, hair roots	Non-specific and specific culture methods, in aerobic atmosphere, in liquid and on solid media
Enterobacterales	Swabs, blood culture (partially mechanised), bronchial lavage, pus, ejaculate, tissue, cerebrospinal fluid, puncture specimens, secretions, sputum, urine	Non-specific and specific culture methods, in aerobic atmosphere, in liquid and on solid media
Gardnerella vaginalis	Material from the urogenital tract	Specific culture methods, in CO ₂ -enriched atmosphere, on solid media

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Analyte (measurand)	Test material (matrix)	Test technique
Haemophilus spp.	Swabs, blood culture (partially mechanised), bronchial lavage, ejaculate, cerebrospinal fluid, puncture specimens, secretions, sputum	Nonspecific culture Methods, in CO ₂ -enriched atmosphere, on solid media
Helicobacter pylori	Gastric PE	Non-specific and specific culture methods, in microaerophilic atmosphere, on solid media
Legionella	Swabs, bronchial lavage, puncture specimens	Non-specific and specific culture Methods, in CO ₂ -enriched atmosphere, on solid media
Listeria	Swabs, blood culture (partially mechanised), amniotic fluid, meconium, stool	Non-specific and specific culture Methods, in CO ₂ -enriched atmosphere, in liquid and on solid media including cold enrichment
Moraxella catarrhalis	Swabs, blood culture (partially mechanised), ejaculate, cerebrospinal fluid, puncture	Nonspecific culture Methods, in CO ₂ -enriched atmosphere, on solid media
Neisseria	Swabs, blood culture (partially mechanised), ejaculate, cerebrospinal fluid, puncture	Nonspecific culture Methods, in CO ₂ -enriched atmosphere, on solid media
Pasteurella	Swabs, materials from the respiratory tract	Non-specific culture methods, in aerobic atmosphere, on solid media
Pseudomonas and non-fermenters	Swabs, blood culture, (partially mechanised), bronchial lavage, ejaculate, cerebrospinal fluid, puncture specimens, Redon and catheter tips, secretions, sputum, stool, urine	Non-specific and specific culture methods, in aerobic atmosphere, in liquid and on solid media
Salmonella	Swabs, blood culture (partially mechanised), colon biopsy, intestinal secretion, vomit, bile, stool, urine	Non-specific and specific culture methods, in aerobic atmosphere, in liquid and on solid media
Moulds	Swabs, bronchial lavage, dander and adnexa, cerebrospinal fluid, puncture specimens, secretions, sputum	Non-specific and specific culture methods, in aerobic atmosphere, on solid media

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Analyte (measurand)	Test material (matrix)	Test technique
Shigella	Swabs, stool	Non-specific and specific culture methods, in aerobic atmosphere, in liquid and on solid media
Yeast-like fungi	Swabs, blood culture (partially mechanised), bronchial lavage, catheter tips, cerebrospinal fluid, puncture specimens, secretions, sputum, stool, urine	Non-specific and specific culture methods, in aerobic atmosphere, on solid media
Staphylococcus, MRSA	Swabs, blood culture (partially mechanised), bronchial lavage, ejaculate cerebrospinal fluid, puncture specimens, secretions, sputum, stool, urine	Non-specific and specific culture methods, in aerobic atmosphere, in liquid and on solid media
Streptococci, enterococci, aerococci	Swabs, blood culture (partially mechanised), bronchial lavage, ejaculate cerebrospinal fluid, puncture specimens, secretions, sputum, stool, urine	Non-specific and specific culture methods, in aerobic or CO ₂ atmospheres, in liquid and on solid media
Vibrio	Swabs, blood culture (partially mechanised), vomit, stool	Non-specific and specific culture methods, in aerobic atmosphere, on solid media
Yersinia	Swabs, blood, lymph nodes and other surgical material, puncture specimens, secretions, stool	Non-specific and specific culture methods, in aerobic atmosphere, in liquid and on solid media and cold enrichment

Type of test:

Ligand assays*

Analyte (measurand)	Test material (matrix)	Test technique
Clostridioides difficile GDH, toxins A and B	Stool	Enzyme immunoassay
Entamoeba histolytica and dispar	Stool	Enzyme immunoassay
Enterotoxins from Clostridium perfringens	Stool	Enzyme immunoassay
Escherichia coli verotoxin 1 + 2	Stool	Enzyme immunoassay
Giardia lamblia	Stool	Enzyme immunoassay
Cryptosporidia	Stool	Enzyme immunoassay
Campylobacter	Stool	Enzyme immunoassay
Plasmodium spec. antigen (malaria)	EDTA, capillary blood	In vitro immunochromatographic assay

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**Type of test:
Microscopy****

Analyte (measurand)	Test material (matrix)	Test technique
Actinomycetes	Swabs, blood culture, biopsy material, bile, bladder puncture urine, bronchial lavage, pus, ejaculate, IUD, puncture specimens, secretions, sputum	brightfield microscopy after colouring using stains
Anaerobes	Swabs, bladder puncture urine, blood culture, biopsy material, bile, material from the lower respiratory tract, material from the urogenital tract, puncture specimens	brightfield microscopy after colouring using stains
Babesia	EDTA blood, capillary blood	brightfield microscopy after colouring using stains
Bacilli	Swabs, blood culture, bronchial lavage, ejaculate, puncture specimens, secretions, sputum, stool, urine	brightfield microscopy after colouring using stains
Campylobacter	Swabs, blood culture, colon biopsy, secretions, stool	brightfield microscopy after colouring using stains
Corynebacteria	Swabs, blood culture, material from the respiratory tract, Redon and catheter tips, urine	brightfield microscopy after colouring using stains
Dermatophytes	Nails, dander, hair roots	Direct fluorescence microscopy using fluorochrome brightfield microscopy without colouring
Enterobacteria	Swabs, blood culture, bronchial lavage, pus, ejaculate, tissue, cerebrospinal fluid, puncture specimens, secretions, sputum, urine	brightfield microscopy after colouring using stains
Gardnerella vaginalis	Material from the urogenital tract	brightfield microscopy after colouring using stains
Giardia lamblia, amoebae, microsporidia and leishmania	Swabs, intestinal biopsy, intestinal secretions, tissue, stool	brightfield microscopy after colouring using stains brightfield microscopy without colouring
Haemophilus spp.	Swabs, blood culture, bronchial lavage, ejaculate, cerebrospinal fluid, puncture specimens, secretions, sputum	brightfield microscopy after colouring using stains
Helicobacter pylori	Gastric PE	brightfield microscopy after colouring using stains
Cryptosporidia and Cyclospora	Intestinal biopsy, intestinal secretions, stool	brightfield microscopy after colouring using stains
Legionella	Swabs, bronchial lavage, puncture specimens	brightfield microscopy after colouring using stains

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Analyte (measurand)	Test material (matrix)	Test technique
Listeria	Swabs, blood culture, amniotic fluid, meconium, stool	brightfield microscopy after colouring using stains
Microfilariae	EDTA blood, capillary blood	brightfield microscopy after colouring using stains
Mobiluncus spp.	Material from the urogenital tract	brightfield microscopy after colouring using stains
Moraxella catarrhalis	Swabs, blood culture, ejaculate, cerebrospinal fluid, puncture	brightfield microscopy after colouring using stains
Neisseria	Swabs, blood culture, ejaculate, cerebrospinal fluid, puncture	brightfield microscopy after colouring using stains
Pasteurella	Swabs, materials from the respiratory tract	brightfield microscopy after colouring using stains
Plasmodium spec. (malaria)	EDTA blood, capillary blood	brightfield microscopy after colouring using stains
Pseudomonas and non-fermenters	Swabs, blood culture, bronchial lavage, ejaculate, cerebrospinal fluid, puncture specimens, Redon and catheter tips, secretions, sputum, stool, urine	brightfield microscopy after colouring using stains
Moulds	Swabs, bronchial lavage, dander and adnexa, cerebrospinal fluid, puncture specimens, secretions, sputum	brightfield microscopy after colouring using stains
Yeast-like fungi	Swabs, blood culture, bronchial lavage, catheter tips, cerebrospinal fluid, material from the urogenital tract, puncture specimens, secretions, sputum, stool, urine	brightfield microscopy after colouring using stains
Staphylococcus, MRSA	Swabs, blood culture, bronchial lavage, ejaculate cerebrospinal fluid, puncture specimens, secretions, sputum, stool, urine	brightfield microscopy after colouring using stains
Streptococci, enterococci, aerococci	Swabs, blood culture, bronchial lavage, ejaculate cerebrospinal fluid, puncture specimens, secretions, sputum, stool, urine	brightfield microscopy after colouring using stains
Trypanosomes	EDTA blood, capillary blood	brightfield microscopy after colouring using stains
Ectoparasites, worms, worm parts, worm eggs, protozoa	Material to exclude a parasitic origin, stool, urine	brightfield microscopy after colouring using stains brightfield microscopy without colouring

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Test area: Virology

Type of test:

Ligand assays*

Analyte (measurand)	Test material (matrix)	Test technique
Adenovirus	Stool	Enzyme immunoassay
Astrovirus	Stool	Enzyme immunoassay
Norovirus	Stool	Enzyme immunoassay
Rotavirus	Stool	Enzyme immunoassay

Bünde location

Hindenburgstraße 56, 32257 Bünde

Test area: Clinical chemistry

Type of test:

Flow cytometry (including particle property determination)*

Analyte (measurand)	Test material (matrix)	Test technique
Complete blood count (including reticulocytes)	EDTA blood	Resistance measurement principle Pulse height summation Photometric measurement Flow cytometry
Blood count	EDTA blood	Resistance measurement principle Pulse height summation Photometric measurement Flow cytometry

Type of test:

Electrochemical tests *

Analyte (measurand)	Test material (matrix)	Test technique
Potassium	Li-heparin plasma, serum	Indirect multisensor technology
Sodium	Li-heparin plasma, serum	Indirect multisensor technology

Type of test:

Ligand assays*

Analyte (measurand)	Test material (matrix)	Test technique
FT3	Li-heparin plasma, serum	Chemiluminescence immunoassay
FT4	Li-heparin plasma, serum	Chemiluminescence immunoassay
HCG	Urine	Immunoassay
Procalcitonin (PCT)	EDTA, Li-heparin plasma, serum	Immunofluorescence assay
Troponin I hs	Li-heparin plasma, serum	Chemiluminescence immunoassay
TSH	Li-heparin plasma, serum	Chemiluminescence immunoassay

Type of test:

Coagulometry*

Analyte (measurand)	Test material (matrix)	Test technique
Fibrinogen	Citrate plasma	Coagulometric determination
PTT (partial thromboplastin time)	Citrate plasma	Coagulometric determination
Quick-INR (thromboplastin time)	Citrate plasma	Coagulometric determination

Type of test:

Microscopy*

Analyte (measurand)	Test material (matrix)	Test technique
Differential blood count	EDTA blood, capillary blood	Microscopy
Urine sediment	Urine	Microscopy

Type of test:

Spectrometry (turbidimetry)*

Analyte (measurand)	Test material (matrix)	Test technique
D-dimers	Citrate plasma	Turbidimetric determination
Vancomycin	Li-heparin plasma, serum	Turbidimetric determination

Type of test:

Spectrometry (UV/VIS photometry)**

Analyte (measurand)	Test material (matrix)	Test technique
α -Amylase	Li-heparin plasma, serum	Photometric method
Alkaline phosphatase (AP)	Li-heparin plasma, serum	Photometric method
Alcohol	Li-heparin plasma, serum	Photometric method
ATIII	Citrate plasma	Photometric method
Bilirubin total	Li-heparin plasma, serum	Photometric method
Bilirubin direct	Li-heparin plasma, serum	Photometric method
Calcium	Li-heparin plasma, serum	Photometric method
Cholesterol	Li-heparin plasma, serum	Photometric method
Creatinine	Li-heparin plasma, serum	Photometric method
Creatine kinase (CK)	Li-heparin plasma, serum	Photometric method
γ -GT (γ -glutamyl transferase)	Li-heparin plasma, serum	Photometric method
Gentamicin	Li-heparin plasma, serum	Photometric method
Total protein	Li-heparin plasma, serum	Photometric method
Glucose	NaF, Li-heparin plasma, serum	Photometric method
GOT (AST = aspartate aminotransferase)	Li-heparin plasma, serum	Photometric method
GPT (ALT = alanine aminotransferase)	Li-heparin plasma, serum	Photometric method
Uric acid	Li-heparin plasma, serum	Photometric method
Urea	Li-heparin plasma, serum	Photometric method
HDL	Li-heparin plasma, serum	Photometric method
Lactate dehydrogenase (LDH)	Li-heparin plasma, serum	Photometric method
LDL	Li-heparin plasma, serum	Photometric method
Lipase	Li-heparin plasma, serum	Photometric method
Magnesium	Li-heparin plasma, serum	Photometric method
Phosphate, inorganic	Li-heparin plasma, serum	Photometric method
Pseudocholinesterase (CHE)	Li-heparin plasma, serum	Photometric method

Analyte (measurand)	Test material (matrix)	Test technique
Triglycerides	Li-heparin plasma, serum	Photometric method

Type of test:

Spectrometry (reflectometry)*

Analyte (measurand)	Test material (matrix)	Test technique
Urine status	Urine	Photometric method

Test area: Immunology

Type of test:

Spectrometry (turbidimetry)*

Analyte (measurand)	Test material (matrix)	Test technique
CRP	Li-heparin plasma, serum	Turbidimetric determination

Test area: Transfusion medicine

Type of test:

Agglutination tests*

Analyte (measurand)	Test material (matrix)	Test technique
Antibody screening	EDTA blood	Column agglutination test
ABO blood groups	EDTA blood, native blood	Haemagglutination test
Direct Coombs test	EDTA blood	Column agglutination test
Kell antigen	EDTA blood, native blood	Haemagglutination test
Rhesus factor	EDTA blood, native blood	Haemagglutination test