

# Product Information

Recommended testing material

Testing material with restrictions

Code	Tube Type
Z	Serum Clot Activator
Z	Serum Sep. Clot Activator
LH	Lithium Heparin
LH Sep	Lithium Heparin Sep
NH	Nastrium Heparin
AH	Ammonium Heparin
K2E	EDTA K2
K3E	EDTA K3
K3E liquid	K3 EDTA liquid
FE	Sodium Fluoride / EDTA
FX	Sod. Fl. / Potassium Oxalate
LH / MJA	LH / MJA
9NC	Coag. sodium citrate 3.2%
9NC	Coag. sodium citrate 3.8%
9NC	CTAD
Z	ACDA, ACDB, OPDA
K3E	Crossmatch K3EDTA
NH	Trace Elements Sodium Heparin
Z	Tr. Elem.-Serum Clot Activator
K2E Sep	K2EDTA Sep
Z	Urine No Additive
Z	Urine Culture
Z	No Additive
4NC	ESR sodium citrate

Tests

Test Category	Test Name	Z	Z	LH	LH Sep	NH	AH	K2E	K3E	K3E liquid	FE	FX	LH / MJA	9NC	9NC	9NC	Z	K3E	NH	Z	K2E Sep	Z	4NC	
Urine	Urinary sediment e.g.: quantitative, qualitative, cell counting																							
	Endogenous physiological substances e.g.: urea, creatinine, metabolites from the metabolism, electrolytes, amongst others																							
	Endogenous pathological substances e.g.: proteins with renal disorders, hemoglobin with hemolysis, bile pigments with liver disorders, porphyrins with porphyria, hormones with tumours, glucose etc.																							
	Exogenous substances e.g.: drugs and drugs of abuse or their metabolites, heavy metals or other toxins, bacteria, viruses or parasites with infections																							
Clinical Chemistry	Metabolites e.g.: ammoniac <sup>1</sup> , apolipoprotein A <sup>1</sup> , -B, bilirubin conjugated -direct, -indirect, cholesterol, fructosan, uric acid, urea, HDL-cholesterol, creatinine, LDL-cholesterol, lipoprotein (a), phosphate <sup>2</sup> , triglyceride																							
	Electrolytes e.g.: calcium <sup>3</sup> , chloride, potassium <sup>4</sup> , sodium <sup>4</sup> , magnesium <sup>5,6</sup>																							
	Enzymes e.g.: ALAT, aldolase, AP, amylase, ASAT, cholinesterase, CK, CK-MB, GGT, GLDH, HBDH, LDH, lipase, SP, SPP																							
	Proteins e.g.: albumin, α <sub>1</sub> -antitrypsin, α <sub>1</sub> -acid glycoprotein, α <sub>2</sub> -macroglobulin, microglobulin (α <sub>1</sub> -β <sub>2</sub> -), CDT, ceruloplasmin, CRP, ferritin, hemopexin, haptoglobin, IgA, IgE, IgG, IgM, myoglobin, neopterin, osteocalcin, prealbumin, procalcitonin, prote inelectrophoresis <sup>11</sup> , total protein, TBG, transferrin, troponin-I, troponin-T																							
	Thyroid functions e.g.: MAK, TAK, TRAK, TBG, free T3, free T4, total T3 <sup>7</sup> , total T4, TSH, T3-uptake-test																							
	Hormones <sup>12</sup> e.g.: ACTH <sup>8</sup> , aldosteron, androstenedione, C-peptide, calcitonin, cortisol, DHEA, DHEAS, estriol, estradiol, FSH, HCG, parathormone (PTH), progesterone, prolactin, renin <sup>9</sup> , testosterone																							
	Tumour markers e.g.: AFP, CA125, CA15-3, CA19-9, CA50, CA72-4, CA549, calcitonin (HCT), CEA, CYFRA21-1, HCG, MCA, NSE <sup>10</sup> , PSA, SCC, TG, TPA																							
	Cytokines e.g.: interferone, interleukin, interleuki-receptors, tumour necrosis factors or INF-α, INF-β, IL-2, IL-6, IL-2-receptor, TNF-α																							
	Trace elements e.g.: aluminium <sup>8</sup> , arsenic, lead, cadmium, chrome, iron, fluoride, cobalt, copper, lithium <sup>4</sup> , manganese <sup>6</sup> , molybdenum, mercury, selenium, thallium, zinc																							
	Vitamines Folic acid Vitamin -A, -B12, -C, 1.25-dihydroxy-vitamin D3, 25- hydroxy-vitamin D3, E, folic acid Vitamin -B1, -B2, -B12, Folic acid Vitamin -B1, -B2, -B6, -B12, -E, -K																							
TDM e.g.: antiepileptics, bronchodilators, cardiac medication, antibiotics, immunosuppressives, antidepressants, psychotropic drugs, analgesics																								
Hematology	Hemoglobin e.g.: free hemoglobin (qualitative and quantitative in plasma), carboxyhemoglobin (CO-Hb), methemoglobin (methHb), hemoglobin F, hemoglobin A1c																							
	Complete Blood Count (CBC) e.g.: hemoglobin, hematocrit, erythrocytes, MCV, MCH, MCHC, leukocytes, thrombocytes, reticulocytes, differential blood count																							
	Differentiation of Lymphocytes e.g.: B-lymphocyte, T-lymphocyte, T-helper-cells (CD-4), T-suppressor cells (CD-8), natural killer cells																							
Coagulation	Coagulation e.g.: quick test, aPTT, PTZ, antithrombin III, D-dimers, fibrinogen, fibrin degradation, products (FDP) <sup>13</sup> , coagulation factors, plasminogen, protein C, protein S																							
	Serology e.g.: ANA, anti-DNA, antistaphylolysin, antistreptolysin, C3/C4, CRP, HLA B27 <sup>14</sup> , protein- electrophoresis <sup>11</sup> , rheumatoid factor, Rose-Waaler test, immune complex <sup>11</sup> , immunoelectrophoresis <sup>11</sup>																							
	Autoantibodies e.g.: AMA, ANA, ANCA, Antibodies against exogenous antigens (allergy) e.g.: total IgE, allergy specific IgE																							
	Complement e.g.: CH 50, C4, C1-INH, C3, C1q, factor B Immune hematology e.g.: blood group (ABO), Rh-factor, minor/major crossmatch, direct/indirect Coombs'-test, cold agglutinin, cryoglobulins																							
Specialities	Erythrocyte Sedimentation Rate																							
	Glucose und Lactate																							
	Cerebrospinal Fluid (CSF) e.g.: clinical chemistry-, microbiological-, cytological- examinations																							
	Hepatitis-serology (antibodies and antigens) IgG- or IgM- antibodies e.g.: anti-HAV, -HBs, -HbC, -HBe, -HDV, -HEV and antigens, e.g. BBs-, HBe-antigen																							
	Antibodies against other viruses IgA-, IgG-, IgM- antibodies against e.g.: CMV, EBV, HHV type6, HSV, VZV, Adenovirus, Coxsackie virus, Dengue virus, ECHO virus, FSME, Hantavirus, HIV, HPV, Measles virus, Mumps virus, Parainfluenza virus 1,2,3, Parvovirus B19, Picornavirus, Rhinovirus, Rubella virus, RSV																							
	Antibodies against parasites Antibodies against e.g.: Amoeba, Echinococcus, Filariae, Malaria, Schistosoma, Toxoplasmosis																							
	Antibodies against bacteria and bacterial toxin Antibodies against e.g.: Bordatella pertussis, Brucella, Chlamydia, Helicobacter pylori, cat scratch disease, Legionella, Listeria, Mycoplasmal pneumonia, Q fever, Rickettsia, Spirochaeta: Borrelia, Leptospira, Treponema																							
	Antibodies against Fungi Antibodies against e.g.: Aspergillus, Blastomycosis, Candidiasis, Coccidioidomycosis, Cryptococcosis																							
	Lues Serology e.g.: TPHA Molecular Biological Identification of Viruses, Parasites and Bacteria (PCR, LCR, hybridization), e.g.: HBV-DNA, HCV-RNA, HIV-RNA																							

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Note: 1-Determination of ammoniac only possible in EDTA-plasma 2-Inorg. phosphate in serum is approx. 10% higher than in plasma 3-EDTA-plasma is unsuitable for calcium; ionized calcium only in heparin-plasma 4-Do not measure sodium from sodium-heparin tube / lithium from lithium-heparin tube 5-The values for potassium and magnesium are higher in serum than in plasma 6-EDTA-plasma is unsuitable for magnesium determination 7-For T3 the use of serum is recommended 8-Do not use serum tubes for ACTH, aluminium and manganese determinations 9-Renin only out of EDTA plasma 10-NSE only out of heparin plasma 11-Only use serum 12-Hormones are unstable, stabilizers are recommended 13-Do not use citrate plasma for FDP; use serum oder thrombin/trypsin inhibitor mixture 14-HLA B27 only in Heparin- or EDTA-blood