



Determination of Analytes in Biological Samples (December 2018)

Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
Acetaldehyde (ethanal)	GC-MS	Mouse plasma	20 µM
Acetamide	GC-MS	Raw milk	2 µg/mL
Acetylcysteine	HPLC	Human plasma	
N-acetyl-D-leucine	LC-MS/MS	Human urine	0.1 µg/mL
N-acetyl-L-leucine	LC-MS/MS	Dog plasma Human plasma, Human urine	1 µg/mL, 0.1 µg/mL, 2 µg/mL
Acetylsalicylic acid	HPLC	Human plasma, plas- ma of farm animals	
Ademethionin	LC-MS/MS	Human plasma	20 ng/mL
Alendronate	LC/MS-MS	Human urine	5 ng/mL
Allopregnanolone	GC-MS	Human plasma, Hu- man serum	20 pg/mL
Allopurinol	LC-MS/MS	Human plasma	20.0 ng/mL
Ambrisentan	LC-MS/MS	Human plasma	10 ng/mL
p-Amino benzoic acid	LC-MS/MS	Fermentation solution	5 ng/mL
5-Aminosalicylic acid / Ac-5- ASA	HPLC	Human plasma	
Amoxicillin	HPLC	Plasma and serum of farm animals	0,1 µg/mL
Amlodipine	LC-MS/MS	Human plasma	50 pg/mL
Ampicillin	HPLC	Human plasma Plasma of farm ani- mals	0.1 µg/mL
Apovincaminic acid	LC-MS/MS	Human plasma	1 ng/mL
Aripiprazol	LC-MS/MS	Human plasma, Hu- man serum	0.5 ng/mL 2 ng/mL
Atovaquone	LC-MS/MS	Human plasma	15 ng/mL
Rac-Biotin	LC-MS/MS	Fermentation solution	5 ng/mL
Bosentan	LC-MS/MS	Human plasma	10 ng/mL
Caffeine	HPLC	Human plasma	
Candesartan	HPLC	Human plasma	3 ng/mL



Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
Carbamazepine	HPLC	Human plasma	
Carbazochrome	LC-MS/MS	Human plasma	0.07 ng/mL
Carbidopa	HPLC	Human plasma	
Carbidopa	LC-MS/MS	Human plasma	5 ng/mL
Carbocisteine	LC-MS/MS	Human plasma	50 ng/mL
1-(3-Carboxypropyl)-3,7-dimethylxanthine	HPLC	Human plasma Human serum	0.03 µg/mL
Capecitabine	LC-MS/MS	Human plasma	0.05 µg/mL
Carprofen	HPLC	Horse plasma Horse serum	0.05 µg/mL 0.1 µg/mL
Carvedilol	HPLC	Human plasma	0.5 ng/mL
Cefaclor	HPLC	Human plasma	
Cefadroxil	HPLC	Human plasma	
Cefalexin	LC-MS/MS	Human plasma	0.25 µg/mL
Cefdinir	LC-MS/MS	Human plasma	10 ng/mL
Cefpodoxim	LC-MS/MS	Human plasma	20 ng/mL
Cefprozil	LC-MS/MS	Human plasma	150 ng/mL
Cefuroxim	HPLC	Human plasma	0.1 µg/mL
Chloramphenicol	HPLC	Plasma of farm animals	
Chlormadinone acetate / Chlor- madinol	LC-MS/MS	Human plasma	0.05 ng/mL
Chlorpromazine	HPLC	Human plasma	
Chlortetracycline	HPLC and LC-MS	Plasma of farm animals, edible tissues of farm animals	50 ng/mL
Ciprofloxacin	HPLC	Plasma and serum of farm animals	0.05 µg/mL
Citalopram	HPLC	Human plasma, Human serum	0.75 ng/mL
Clenbuterol	LC-MS/MS	Plasma of farm animals	15 pg/mL
Clidamycin	LC-MS/MS	Plasma, urine tissue	2.5 ng/mL 2.5 ng/g
Clodronic acid	GC-MS	Horse plasma	0.1 µg/mL
Chlormadinone acetate (CMA)	LC-MS/MS	Human plasma	50 pg/mL
Clofibrate	HPLC	Human plasma	



Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
Clomifen	LC-MS	Human plasma, Human serum	1 ng/mL 0.2 ng/mL
Codein	LC-MS	Human plasma, Human serum	1 ng/mL
Cyanocobalamin	LC-MS/MS	Fermentation solution	5 ng/mL
Cytarabine	LC-MS/MS	Phosphate buffered saline	0.1 µM
Dabigatran (free and total)	LC-MS/MS	Human plasma	2.5 ng/mL
Daunorubicin	LC-MS/MS	Phosphate buffered saline	0.05 µM
Decitabine	LC-MS/MS	Rabbit plasma	0.5 ng/mL
Deferasirox	LC-MS/MS	Human plasma	0.25 µg/mL
Dehydroepiandrosterone (DHEA)	GC-MS	Human plasma, Human serum	0.5 ng/mL
Dembrexin	LC-MS/MS	Equine plasma	250 pg/mL
Desmethyl mebeverine acid	LC-MS/MS	Human plasma	10 ng/mL
3-desmethylthiocolchicine	LC-MS/MS	Human plasma	0.3 ng/mL
Desogestrel	LC-MS/MS	Human plasma	250 pg/mL
Dexamethasone / Dexamethasone phosphate	HPLC and GC-MS	Human plasma, plasma of farm animals	
Dexamethason	LC-MS/MS	Human plasma	0.5 ng/mL
Dexamethasone / Dexamethasone phosphate	LC-MS/MS	Tissue of laboratory animals	0.5 ng/g
Dexketoprofen	LC-MS/MS	Human plasma	20 ng/mL
Diazepam	HPLC	Human plasma	
Dihydrotachysterol	HPLC	Human plasma	
Dihomo-γ-linolenic acid(DGLA)	GC-MS	Human plasma	3 µg/mL
Diosmetin	LC-MS/MS	Human plasma	1 ng/mL
Dodecyloleat	GC-MS	Water	5 ng/mL
Donepezil	LC-MS/MS	Human plasma	0.2 ng/mL
Doxepin / Nordoxepin (cis-trans)	HPLC	Human plasma	
Doxylamine succinate	HPLC	Human plasma	
Drotaverine	LC-MS/MS	Human plasma	2 ng/mL
Emtricitabine	LC-MS/MS	Human plasma	10 ng/mL
Enrofloxacin	HPLC	Plasma and serum of	0.05 µg/mL



Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
		farm animals	
Entacapone	LC-MS/MS	Human plasma	25 ng/mL
Entecavir	LC-MS/MS	Human plasma	100 pg/mL
Ephedrine	HPLC	Human plasma	
Eprinomectine	HPLC	Plasma of farm animals	0.5 ng/mL
Esketamine	LC-MS/MS	Minipig plasma	0.2 ng/mL
Escitalopram	LC-MS/MS	Human plasma	0.2 ng/mL
Estradiol	LC-MS/MS	Serum	
Ethinylestradiol	GC-MS	Human plasma	8 pg/mL
Ethinylestradiol	LC-MS/MS	Human plasma	2 pg/mL
Ezetimibe (free and total)	LC-MS/MS	Human plasma, Human serum	0.05 ng/mL
Famotidine	LC-MS/MS	Human plasma	1 ng/mL
Fenbendazole	HPLC	Plasma of farm animals, edible tissues and milk of farm animals	
Fenipentol (Phenylpentanol)	GC-MS	Human plasma	
Fenofibrate	HPLC	Human plasma	0.2 µg/mL
Fingolimod	LC-MS/MS	Human whole blood	50 pg/mL
Flubendazol	HPLC	Plasma of farm animals, edible tissues of farm animals and milk	10 µg/mL
Fluconazole	HPLC	Human plasma	0.1 µg/mL
Flurbiprofene	LC-MS/MS	Human plasma	200 ng/mL
Flutamide / Hydroxyflutamide	HPLC	Human plasma	
Fluticasone	LC-MS/MS	Human plasma, Human serum	5 pg/mL
Fluticasone	LC-MS/MS	Tissue of laboratory animals	1 ng/g
Folic acid	LC-MS/MS	Fermentation solution	5 ng/mL
Fosfomycin	LC-MS/MS	Human Plasma, Human urine	0.05 µg/mL
Furosemide	HPLC	Human plasma	
Gentamicine	LC-MS/MS	Human plasma, Hu-	4 ng/mL



Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
		man urine	50 ng/mL
Ginkgolides /Bilabolide	LC-MS/MS	Human plasma, Human serum	1 ng/mL
Glibenclamide	HPLC	Human plasma	
Gliclazide	HPLC	Human plasma	10 ng/mL
Glimepirid	LC-MS	Human plasma	10 ng/mL
Glucosinolate (Sinigrin, Glucosturtiin, Glucotropaeolin)	HPLC	Human urine	
Glucose	GC-MS	Human serum	0.1 mg/mL
Hesperetin	LC-MS/MS	Human plasma	0.5 ng/mL
Hydrochlorothiazide	LC-MS/MS	Human plasma	2,5 ng/mL
Hydrocortisone	LC-MS/MS	Human plasma	3 ng/mL
Hydrocortisone	LC/MS-MS	Human urine	2 ng/mL
Hydroxymidazolam	LC-MS/MS	Human plasma	0.1 ng/mL
Hydroxypentoxifylline	HPLC	Human plasma Human serum	0.015 µg/mL
Ibandronate	LC-MS/MS	Human plasma	0.5 ng/mL
Ibuprofen (Enantiomers)	HPLC	Human plasma	
Imatinib	LC-MS/MS	Human plasma	30 ng/mL
Indapamide	LC-MS/MS	Human whole blood	0.25 ng/mL
Indomethacine	HPLC	Human plasma	
Irbesartan	HPLC	Human plasma	0.05 µg/mL
Ketoconazol	HPLC	Human plasma	0.1 µg/mL
3-Keto desogestrel	LC-MS	Human plasma	25 pg/mL
Ketophenylbutazone	HPLC	Human plasma	
Levodopa and metabolites	HPLC	Human plasma	
Levodopa	LC/MS-MS	Human plasma	20 ng/mL
Levocloperastin	LC/MS-MS	Human plasma	0.1 ng/mL
Levonorgetrel	LC/MS-MS	Human plasma	25 pg/mL
Lincomycine	HPLC and GC-MS	Plasma of farm animals, edible tissues of farm animals	
Linolenic acid(GLA)	GC-MS	Human plasma	3 µg/mL
Lipoic acid	HPLC	Human plasma	100 ng/mL



Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
Lipoic acid	LC/MS-MS	Human plasma	50 ng/mL
Lipoic acid	LC/MS-MS	Fermentation solution	5 ng/mL
Lisinopril	LC-MS	Human plasma	
Lisinopril	LC-MS/MS	Human plasma	1.00 ng/mL
Lurasidone	LC-MS/MS	Human plasma	1.00 ng/mL
Memantine	LC-MS/MS	Human plasma	0.2 ng/mL
Metformin	LC-MS/MS	Human plasma	20 ng/mL
Methocarbamol	LC-MS/MS	Human plasma	0.05 µg/mL
N-Methylacetamide	GC-MS	Raw milk	0.1 µg/mL
4-Methylaminophenazon	HPLC	Plasma of farm animals	
Midazolam	LC-MS/MS	Human plasma	0.2 ng/mL
Montelukast	LC-MS/MS	Human plasma	2 ng/mL
Morphine	LC/MS-MS	Human plasma	0.5 ng/mL
Moxifloxacin	LC-MS/MS	Human plasma	50 ng/mL
Mycophenolic acid	HPLC	Human plasma	0.05 µg/mL
N-Acetyl-L-Cysteine	HPLC	Human plasma	
Naproxen	HPLC	Human plasma	0.20 ng/mL
Naproxen	LC-MS/MS	Human plasma	500 ng/mL
Neomycine	LC-MS/MS	Human plasma, Human urine	50 ng/mL
Neopterin	LC-MS/MS	Minipig serum	0.5 ng/mL
Nicethamide	HPLC	Human plasma	
Nicotinic acid	LC/MS-MS	Fermentation solution	5 ng/mL
Nimesulide	LC/MS-MS	Human plasma	0.05 µg/mL
Nimodipine	LC-MS/MS	Human tissue	
Nitrazepam	HPLC	Human plasma	
Norpseudoephedrine	HPLC	Human plasma	
Noscapin	HPLC	Human plasma	
1-Octene	GC-MS	Rat plasma and bone marrow	50 ng/mL
Olanzapine	LC-MS	Human plasma, Human serum	0.5 ng/mL
Ornidazol	HPLC	Human plasma	0.1 µg/mL



Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
Oxytetracycline	HPLC	Plasma of farm animals, edible tissues of farm animals	
Pantothenic acid	LC/MS-MS	Fermentation solution	5 ng/mL
Paracetamol	LC-MS/MS	Human plasma	0.03 µg/mL
Penicillin G	HPLC	Plasma of farm animals, edible tissues of farm animals	6.25 ng/g
Penicillin G	LC-MS/MS	Milk of farm animals, Plasma of farm animals, Tissue of farm animals	1 ng/mL 5.0 ng/mL 6.25 ng/g
Penicillin V	HPLC	Plasma of farm animals, edible tissues of farm animals	
Pentoxifylline	HPLC	Human plasma Human serum	0.015 µg/mL
Perindopril	LC-MS/MS	Human plasma	0.1 ng/mL
Petasine	LC-MS/MS	Human plasma, Rat plasma	0.1 ng/mL, 0.25 ng/mL
Phenazone	HPLC	Human plasma	
Phenprocoumon	HPLC	Human plasma	
2-Phenylbutyric Acid	LC-MS/MS	Human plasma	10 ng/mL
Phenytoin	HPLC	Human plasma	
Pioglitazone	LC-MS/MS	Human plasma	2.00 ng/mL
Polymyxin	HPLC	Plasma and milk of farm animals, edible tissues of farm animals	
Posaconazole	LC-MS/MS	Human plasma	2.00 ng/mL
Prednisolone	HPLC	Human plasma, plasma of farm animals,	5 ng/mL
Prednisolone	GC-MS	Edible tissues of farm animals Raw milk	0.5 ng/g 0.5 ng/mL
Prednisone	HPLC	Human plasma	
Prednisone	LC-MS/MS	Human plasma	0.2 ng/mL
Pregnenolone	GC-MS	Human plasma, Human serum	0.1 ng/mL



Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
Proflavine	HPLC	Human urine	
Progesteron	GC-MS	Human plasma, Human serum	0.1 ng/mL
Proguanil	LC-MS/MS	Human plasma	2.5 ng/mL
Promazine	HPLC	Human plasma, Human serum	0.5 ng/mL
Promethazine	HPLC	Human plasma	
Propiverine	LC-MS/MS	Human plasma	0.5 ng/mL
Propranolol	HPLC	Human plasma	
Propafenone (Enantiomers)	HPLC	Human plasma	
Propofol	HPLC	Plasma of domestic animals	
Propyphenazone	HPLC	Human plasma	
Pyridoxine	LC/MS-MS	Fermentation solution	5 ng/mL
2-pyridyl acetic acid (2-PAA)	LC-MS/MS	Human plasma	5 ng/mL
Quetiapine	LC-MS/MS	Human plasma	1 ng/mL
Raloxifene	LC-MS/MS	Human plasma	0.027 ng/mL
Raloxifene-4-Glucuronide	LC-MS/MS	Human plasma	0.167 ng/mL
Raloxifene 6-Glucuronide	LC-MS/MS	Human plasma	0.174 ng/mL
Ramipril	LC-MS/MS	Human plasma	0.2 ng/mL
Ranitidine	HPLC	Human plasma, Human serum	10 ng/mL
Rasagiline	LC-MS/MS	Human plasma	20 ng/mL
Repaglinide	LC-MS/MS	Human plasma, Human serum	1 ng/mL
Riboflavin	LC/MS-MS	Fermentation solution	5 ng/mL
Risedronate	LC-MS/MS	Human plasma, Human serum	0.1 ng/mL
Rivaroxaban	LC-MS/MS	Human plasma	2.0 ng/mL
Rivastigmine	LC-MS/MS	Human plasma, Human serum	0.05 ng/mL
Rupatadine	LC-MS/MS	Human plasma	0.1 ng/mL
Salbutamol	LC-MS/MS	Human plasma, Human serum	0.05 ng/mL
Salmeterol	LC-MS/MS	Human plasma, Human serum	2.5 pg/mL



Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
Sildenafil	HPLC	Human plasma	10 ng/mL
Sitagliptin	LC-MS/MS	Human plasma	5 ng/mL
Spectinomycine	HPLC	Plasma and serum of farm animals, edible tissues of farm animals	1 µg/mL
Sulbactam	HPLC	Human plasma	0.1 µg/mL
Sulfadiazine	HPLC	Human plasma, Human urine Food of farm animal	0.1 µg/mL / 0.01 µg/mL 250 mg/kg
Sulfadimidine	HPLC	Plasma of farm animals, Food of farm animal	0.9 mg/g
Sulfadoxin	HPLC	Plasma and serum of farm animals, Tissue of farm animals, Water/milk substitute of farm animals	0.1 µg/mL 12.5 µg/kg 5 µg/mL
Sulfadimethoxin	HPLC	Plasma of farm animals, Serum of farm animals Tissue of farm animals, Water/milk substitute of farm animals	1 µg/mL 0.5 µg/mL 12.5 µg/kg 5 µg/mL
Sulfamerazine	HPLC	Plasma of farm animals	
Sulthiame	LC-MS/MS	Human plasma	20 ng/mL
Sumatriptan	HPLC	Human plasma	1 ng/mL
Sumatriptan	LC-MS/MS	Human plasma	0.5 ng/mL
Tetracycline	HPLC	Plasma and serum of farm animals, edible tissues of farm animals	50 ng/mL
Tetrahydrodeoxycorticosterone(THDOC)	GC-MS	Human plasma, Human serum	10 pg/mL
Tenofovir	LC-MS/MS	Human plasma	10 ng/mL
Testosterone	LC-MS/MS	Human serum	0.1 ng/mL
Theobromine	HPLC	Human plasma	
Theophylline	HPLC	Human plasma	



Analyte name	METHOD	MATRIX	LLOQ (ng/mL)
Thiamine	LC/MS-MS	Fermentation solution	5 ng/mL
Tizanidine	LC/MS-MS	Human plasma	0.05 ng/mL
Tolperisone	LC-MS	Human plasma	
Thiorphan	LC/MS-MS	Human plasma	1 ng/mL
Tramadol	LC/MS-MS	Human plasma	5 ng/mL
Triamcinolone	HPLC	Human plasma	
Triamcinolone acetonid	HPLC	Human plasma	
Trimethoprim	HPLC	Plasma and serum of farm animals, Tissue of farm animals, Water/milk substitute of farm animals, Food of farm animal	0.01 µg/mL 6.25 µg/kg 1 µg/mL 50 mg/kg
Troloxerutin	LC/MS-MS	Human plasma	0,082 ng/mL
Tylosin	HPLC	Plasma and serum of farm animals, edible tissues of farm animals	0,025 µg/mL
Valproic acid	LC-MS/MS	Human plasma	0,5 µg/mL
Valsartan	LC-MS/MS	Human plasma	15 ng/mL
Vancomycine	HPLC	Human plasma Human urine, Tissues of farm animals	7,5 ng/mL 10 ng/mL, 2.5 ng/mL
Verapamil / Norverapamil (Enantiomers)	HPLC	Human plasma	
Vildagliptin	LC-MS/MS	Human plasma	5 ng/mL
Vinpocetine	LC-MS/MS	Human plasma	0,1 ng/mL
Vinyldithiine	HPLC	Plasma of laboratory animals	
Warfarin (Enantiomers)	HPLC	Human plasma	

Under development:



ANALYTISCHES ZENTRUM
BIOPHARM GMBH BERLIN

	METHOD	MATRIX	LLOQ (ng/mL)
Perfluoromethylcyclopentane (PFMCP)	GC-MS	Rat whole blood	10 ng/mL
Octenidin	LC-MS/MS	Human plasma	1 ng/mL
Drospirenone	LC-MS/MS	Human plasma	2.5 ng/mL
Abiraterone	LC-MS/MS	Human plasma	2.5 ng/mL
Anagrelide	LC-MS/MS	Human plasma	40 pg/mL

DDI assays with following analytes

	METHOD	MATRIX	LLOQ (ng/mL)
Desipramine	LC-MS/MS	Human plasma	
Dextromethorphan	LC-MS/MS	Human plasma	
Dextrorphan	LC-MS/MS	Human plasma	
2-Hydroxy Desipramine	LC-MS/MS	Human plasma	
5-Hydroxy Lansoprazole	LC-MS/MS	Human plasma	
3'-Hydroxy Repaglinide	LC-MS/MS	Human plasma	
Hydroxy Tolbutamide	LC-MS/MS	Human plasma	
Lansoprazole	LC-MS/MS	Human plasma	
Repaglinide	LC-MS/MS	Human plasma	
Tolbutamide	LC-MS/MS	Human plasma	