

PPD Laboratory Services

Bioanalytical Lab Assay List June 2023



Exploratory Biomarker Methods

Validated Methods



LIST OF VALIDATED METHODS

June 2023

Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
3-Hydroxymandelic Acid	Human Urine	100 to 5000 ng/mL	LC/MS/MS	0.05 mL	None	CRYO	Madison	Inactive	P957
4β-Hydroxycholesterol	Human Plasma	5 to 200 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	CRYO	Richmond Madison	Active Active	LCMSF 803.1 P1790
17α-Ethinyl Estradiol (EE) & Etonogestrel	Human Plasma	2 to 800 pg/mL 25 to 10,000 pg/mL	LC/MS/MS	0.5 mL	KOx / NaF	CRYO	Richmond Madison	Inactive Active	LCMSD 603 P1311
Abacavir & Lamivudine (3TC)	Human Plasma	2.5 to 2500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Active	P1165
Abiraterone	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Active	P1652
Acetaminophen & Oxycodone	Human Plasma	100 to 15,000 ng/mL 0.100 to 100 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1310
Acetaminophen & Hydrocodone	Human Plasma	100 to 15,000 ng/mL 0.1 to 50 ng/mL	LC/MS/MS	0.15 mL	K ₂ EDTA	FREEZE	Madison	Active	P1305
Acetaminophen & Hydrocodone & Chlorpheniramine	Human Plasma	100 to 50,000 ng/mL 0.1 to 50 ng/mL 0.25 to 125 ng/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1066
Acetaminophen (Acetaminophen sulfate) (p-Acetamidophenyl-β-D-glucuronide)	Human Urine	0.2 to 200 µg/mL 0.5 to 500 µg/mL 1 to 1000 µg/mL	LC/MS/MS	0.025 mL	None	FREEZE	Madison	Inactive	P851
	Human Plasma	0.1 to 50 µg/mL 0.1 to 50 µg/mL 0.5 to 100 µg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P852
Adefovir	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1053

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Albuterol	Human Plasma	2 to 4000 pg/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P951
	Human Plasma	0.05 to 25 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Madison	Inactive	P1147
	Human Urine	20 to 2000 ng/mL	LC/MS/MS	0.1 mL	None	FREEZE	Madison	Inactive	P465
	Dog Plasma	0.2 to 20 ng/mL	LC/MS/MS	1.0 mL	Na Heparin	FREEZE	Madison	Inactive	P464
	Rat Plasma	0.4 to 400 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Madison	Inactive	P463
Aliskiren	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1145
Alprazolam	Human Plasma	0.25 to 40 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 225
Alprazolam (α -Hydroxyalprazolam) (4-Hydroxyalprazolam)	Human Plasma	0.2 to 40 ng/mL	LC/MS/MS	0.3 mL	Na Heparin	FREEZE	Madison	Inactive	P335
Ambrisentan (4-Hydroxymethyl ambrisentan)	Human Plasma	1 to 400 ng/mL 0.25 to 100 ng/mL	LC/MS/MS	0.1 mL	Na Citrate	FREEZE	Richmond	Inactive	LCMSC 498
	Human Plasma	1 to 500 ng/mL 0.25 to 125 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 498.1
	Human Plasma	1 to 500 ng/mL 0.25 to 125 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1513
Amitriptyline (Nortriptyline)	Human Plasma	0.5 to 200 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Madison	Inactive	P558
	Rabbit Plasma	1 to 500 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P647
Amitriptyline	Human Plasma	0.5 to 200 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 301
Amlodipine	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 151

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Amoxicillin	Human Serum	50 to 25,000 ng/mL	LC/MS/MS	0.1 mL	None	CRYO	Richmond	Inactive	LCMS 141
	Human Plasma	50 to 25,000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	CRYO	Richmond	Inactive	LCMSC 141.2
	Dog Plasma	50 to 25,000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Madison	Active	P1525
	Cat Plasma	50 to 25,000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Madison	Active	P1540
DL-Amphetamine	Human Plasma	0.5 to 50 ng/mL per enantiomer	LC/MS/MS	0.25 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1523
anti-Pembrolizumab (Keytruda) antibodies	Human Serum	Not applicable	MSD-ECL	0.02 mL	None	CRYO	Richmond	Active	ICDIM 352
Apixaban	Human Plasma	5 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1261
Apremilast	Human Plasma	2 to 1000 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1546
Aripiprazole	Human Plasma	10 to 600 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Active	P1992
Aripiprazole (Dehydroaripiprazole)	Human Plasma	0.5 to 250 ng/mL 0.1 to 50 ng/mL	LC/MS/MS	0.25 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 386
Asenapine (Desmethylenapine)	Human Plasma	0.05 to 50 ng/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1120
Atazanavir & Ritonavir	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA / K ₂ EDTA	FREEZE	Madison Richmond	Inactive Inactive	P1012 LCMSC 210.4
Atovaquone	Human Plasma	0.025 to 10 µg/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 360

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Atorvastatin (Ortho-hydroxyatorvastatin) (Para-hydroxyatorvastatin)	Human Plasma	0.1 to 75 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Richmond	Inactive	LCMS 120
	Human Plasma	0.1 to 75 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Madison	Inactive	P913
	Human Plasma	0.1 to 75 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1205
	Rat Plasma	0.1 to 75 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Richmond	Inactive	LCMS 120.3
Avastin (Bevacizumab)	Human Serum	250 to 16,000 ng/mL	MSD-ECL	0.02 mL	None	CRYO	Richmond	Active	ICD 343
Azacitadine	Human Plasma	1 to 2000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Active	P1040
Azelastine Desmethyazelastine	Human Plasma	1 to 1000 pg/mL 0.1 to 100 pg/ mL	LC/MS/MS	1.0 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1231
Azithromycin	Human Plasma	2.5 to 1000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 168
Baclofen	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1341
Balsalazide	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1201
(Beclomethasone-17-propionate) (Beclomethasone dipropionate)	Human Plasma	10 to 2500 pg/mL 5 to 1250 pg/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSD 333.1
Benazepril (Benazeprilat)	Human Plasma	10 to 1000 ng/mL	LC/MS/MS	0.05 mL	Na ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 107
Bicalutamide	Human Plasma	10 to 1250 ng/mL	LC/MS/MS	0.025 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 318
Bisoprolol	Human Plasma	0.5 to 200 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 501

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Boceprevir	Human Plasma	0.01 to 2 µg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA with 5% phosphoric acid	FREEZE	Madison	Inactive	P1168
Bortezomib	Human Plasma with Formic Acid	0.5 to 500 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Richmond Madison	Inactive Inactive	LCMSC 509 P1538
	Human Plasma with Citric Acid	0.5 to 500 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	CRYO	Madison	Inactive	P1247
Brompheniramine	Human Plasma	0.05 to 20 ng/mL	LC/MS/MS	0.1 mL	Li Heparin	FREEZE	Richmond	Inactive	LCMSC 436
Budesonide	Human Plasma	10 to 2500 pg/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P429
Bupivacaine	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Active	P1306
Buprenorphine (Norbuprenorphine) Naloxone	Human Plasma	20 to 10,000 pg/mL 20 to 10,000 pg/mL 2 to 1000 pg/mL	LC/MS/MS	0.5 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1160
Bupropion (Hydroxybupropion) (Erthrohydrobupropion) (Threo hydrobupropion)	Human Plasma	0.5 to 200 ng/mL 1 to 400 ng/mL 0.5 to 200 ng/mL 0.5 to 200 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	CRYO	Madison	Inactive	P986
Bupropion (Hydroxybupropion)	Human CSF	0.5 to 200 ng/mL 1 to 400 ng/mL	LC/MS/MS	0.1 mL	None	CRYO	Madison	Inactive	P1253
(S)-Bupropion [(S,S)-Hydroxybupropion]	Human Plasma	0.5 to 200 ng/mL 2.5 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1279

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
(R)-Bupropion (S)-Bupropion [(R,R)-Hydroxybupropion] [(S,S)-Hydroxybupropion]	Human Plasma	0.5 to 200 ng/mL 2.5 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1347
Caffeine (1,7-Dimethylxanthine)	Human Plasma	20 to 20,000 ng/mL	LC/MS/MS	0.15 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 207
	Human Plasma	25 to 25,000 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Active	P1560
	Human Urine	50 to 50,000 ng/mL	LC/MS/MS	0.025 mL	None	FREEZE	Madison	Inactive	P739
Canagliflozin	Human Plasma	5 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1304
Candesartan	Human Plasma	0.5 to 400 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 451
	Human Urine	10 to 5000 ng/mL	LC/MS/MS	0.05 mL	None	FREEZE	Richmond	Inactive	LCMSC 451.1
Cannabidiol Cannabidiolic Acid	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	CRYO	Madison	Active	P1895
Carbidopa & Levodopa	Human Plasma	0.5 to 250 ng/mL 5 to 2500 ng/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	CRYO	Madison	Inactive	P838
	Rat Plasma	25 to 5000 ng/mL 50 to 10,000 ng/mL	LC/MS/MS	0.02 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1420
Carbidopa (3-O-MethylDopa) & Levodopa	Human Plasma	10 to 5000 ng/mL 400 to 25,000 ng/mL 10 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Active	P1571
Carbamazepine (Carbamazepine 10,11 Epoxide)	Human Plasma	0.05 to 50 µg/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Active	P2001
(Monohydroxycarbamazepine)	Human Plasma	1 to 50 µg/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Madison	Inactive	P886
Carprofen	Dog Plasma	25 to 25,000 ng/mL	LC/MS/MS	0.03 mL	Li Heparin	FREEZE	Madison	Inactive	P1082

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Carvedilol	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Madison	Inactive	P789
Celecoxib	Human Plasma	5 to 2000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond Madison	Inactive Active	LCMSD 417 P1859
Cephalexin	Human Plasma	0.1 to 100 µg/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSB 382
Cetirizine	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSB 169
Chlorpheniramine	Human Plasma	0.25 to 50 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 214
Chlorthalidone	Human Plasma	2 to 1000 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 389.2
	Human Urine	10 to 5000 ng/mL	LC/MS/MS	0.1 mL	None	FREEZE	Richmond	Inactive	LCMS 389.1
Chlorzoxazone (6-Hydroxychlorzoxazone)	Human Plasma	5 to 5000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 209
Clenbuterol	Horse Plasma	12.5 to 1000 pg/mL	LC/MS/MS	1.0 mL	Na Heparin	FREEZE	Madison	Inactive	P1119
Ciprofloxacin	Human Plasma	25 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 176
Ciprofloxacin & Enrofloxacin	Dog Plasma	10 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1127
	Cat Plasma	10 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1256
Citalopram	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 332

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Citalopram (Desmethylocitalopram)	Human Plasma	1 to 500 ng/mL 0.2 to 100 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Madison	Inactive	P787
	Human Plasma	1 to 500 ng/mL 0.2 to 100 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 332.2
Clarithromycin (14-Hydroxycarithromycin)	Human Plasma	20 to 10,000 ng/mL 5 to 2500 ng/mL	LC/MS/MS	0.1 mL	Na Heparin / Li Heparin	FREEZE	Richmond Madison	Inactive Inactive	LCMSB 179 P1742
Clavulanic Acid	Cat Plasma	0.1 to 10 µg/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Madison	Active	P1553
	Dog Plasma	0.1 to 10 µg/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Madison	Active	P1531
Clopidogrel (Clopidogrel Acid)	Human Plasma	0.2 to 200 ng/mL 10 to 10,000 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Active	LCMSC 271
Clorsulon	Cow Plasma	0.1 to 10 ng/mL	LC/MS/MS	1.0 mL	Na Heparin	FREEZE	Madison	Inactive	P717
Cobicistat	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1211
Cocktail Assay, "Epilepsy" Carbamazepine Lamotrigine Phenobarbital Phenytoin Topiramate	Human Plasma	0.1 to 50 µg/mL 0.1 to 20 µg/mL 0.1 to 50 µg/mL 0.1 to 30 µg/mL 0.1 to 50 µg/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P837
Cocktail Assay, "Antiviral" Darunavir Lopinavir Raltegravir Ritonavir	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison Richmond	Active	P1002

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Codeine & Morphine (Morphine-3 β -glucuronide) (Morphine-6 β -glucuronide)	Human Plasma	1 to 100 ng/mL 0.2 to 20 ng/mL 2 to 200 ng/mL 0.5 to 50 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 396
Codeine & Morphine & Guaifenesin	Human Plasma	0.1 to 100 ng/mL 0.2 to 20 ng/mL 2 to 2000 ng/mL	LC/MS/MS	0.3 mL	Na Heparin	FREEZE	Madison	Inactive	P919
Coproporphyrin I and III	Human Plasma	50 to 10,000 pg/mL	LC/MS/MS	0.125 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1712
Cortisol (6 β -Hydroxycortisol)	Human Urine	1 to 200 ng/mL 6 to 1200 ng/mL	LC/MS/MS	0.1 mL	None	CRYO	Richmond	Inactive	LCMSC 355
(6 β -Hydroxycortisol) (6 β -Hydroxycortisone)	Human Urine	0.5 to 250 ng/mL	LC/MS/MS	0.05mL	None	CRYO	Richmond	Inactive	LCMSC 584.1
(6 β -Hydroxycortisol) (6 β -Hydroxycortisone)	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.05mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSC 584
Cortisol <i>aka Hydrocortisone</i> Cortisone	Human Urine	1 to 250 ng/mL	LC/MS/MS	0.05 mL	None	CRYO	Richmond	Inactive	LCMSC 472
	Human Serum	1 to 500 ng/mL 0.5 to 250 ng/mL	LC/MS/MS	0.05 mL	None	CRYO	Richmond	Inactive	LCMSD 472.1
	Human Plasma	1 to 500 ng/mL 0.5 to 250 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSD 472.2
5- α -Tetrahydrocortisol (5- α -THF) 5- β -Tetrahydrocortisol (5- β -THF) Tetrahydrocortisone (THE)	Human Urine	20 to 5000 ng/mL	LC/MS/MS	0.05 mL	None	CRYO	Richmond	Inactive	LCMSC 471
Creatine (Creatinine)	Human Urine	5 to 250 μ g/mL 100 to 5000 μ g/mL	LC/MS/MS	0.025 mL	None	FREEZE	Richmond	Inactive	LCMS 635

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Cyclosporin	Human Whole Blood	5 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 582
	Human Whole Blood	2 to 2000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMSC 582.1 P1429
Dabigatran, Total	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1270
Dabigatran	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1266
Dalfampridine	Human Plasma	0.2 to 50 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1161
Dalteparin using Factor Xa	Human Plasma	0.04 to 0.5 IU/mL	Chromogenic	0.05 mL	Na Citrate	CRYO	Richmond	Inactive	ICD 324
Dalteparin using Factor IIa	Human Plasma	0.03 to 0.16 IU/mL	Chromogenic	0.02 mL	Na Citrate	CRYO	Richmond	Inactive	ICD 325
Darunavir See "Cocktail Assay Antiviral"	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison Richmond	Active	P1002
Dasatinib (Deshydroxyethyl dasatinib)	Human Plasma	0.2 to 200 ng/mL 0.05 to 50 ng/mL	LC/MS/MS	0.25 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1027
Decitabine	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1276
Deferasirox	Human Plasma	0.1 to 100 µg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1223
Deracoxib	Dog Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1094

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Desipramine (2-Hydroxydesipramine)	Human Plasma	0.25 to 100 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 103
	Human Urine	10 to 2500 ng/mL 100 to 25,000 ng/mL	LC/MS/MS	0.05 mL	None	CRYO	Richmond	Inactive	LCMS 103.1
	Human Plasma	0.25 to 100 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P644
Dexamethasone	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 328
	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSD 328
	Human Plasma	0.05 to 50 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Active	LCMSC 328.1 P2056
	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1604
	SD Rat Plasma	0.05 to 50 ng/mL	LC/MS/MS	0.03 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1516
	Dog Plasma	0.05 to 50 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1517
	Dog Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1526
Dexlansoprazole	Human Plasma	5 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1026
Dextromethorphan	Human Plasma	10 to 5000 pg/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P732
Dextromethorphan (Dextrorphan)	Human Plasma	0.05 to 50 ng/mL 0.8 to 800 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P668
Dextromethorphan, Total** & Unconjugated (Dextrorphan)	Human Urine	1 to 1000 ng/mL 20 to 20,000 ng/mL	LC/MS/MS	0.05 mL	None	FREEZE	Madison	Active	P1770
Dextromethorphan & Guaifenesin	Human Plasma	0.01 to 5 ng/mL 8 to 4000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P1285

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Dextromethorphan & Pseudoephedrine	Human Plasma	10 to 5000 pg/mL 0.8 to 400 ng/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P617
Dextromethorphan (Dextrorphan) & Pseudoephedrine	Human Plasma	0.200 to 200 ng/mL 2.50 to 2500 ng/mL 2.50 to 2500 ng/mL	LC/MS/MS	0.025 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 690
Diazepam (N-Desmethyldiazepam)	Human Plasma	2 to 1000 ng/mL 1 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 466
Diclofenac	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Richmond	Inactive	LCMSC 368
	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Madison	Inactive	P1121
Dienogest	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1063
Digoxin	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond Madison	Inactive Inactive	LCMSC 455 P1419
	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 455.1
	Human Plasma	0.05 to 50 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSD 455.2
	Human Plasma	0.01 to 10 ng/mL	LC/MS/MS	0.15 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Active	LCMSD 455.3 P1930
	Human Urine	0.2 to 200 ng/mL	LC/MS/MS	0.25 mL	None	FREEZE	Richmond Madison	Inactive Active	LCMSD 455.4 P1925
Diltiazem (Desacetyldiltiazem) (Desmethyldiltiazem)	Human Plasma	0.1 to 200 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Madison	Inactive	P1634
Diphenhydramine	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P912

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Dipyridamole	Human Plasma	20 to 20,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 625
Docetaxel	Human Plasma	10 to 5000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond Madison	Inactive Active	LCMSB 216 P1750
Dolutegravir	Human Plasma	20 to 20,000 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison Richmond	Inactive Inactive	P1297 LCMSD 726
Donepezil	Human Plasma	0.2 to 50 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 203
	Human Plasma	0.2 to 100 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P983
	Rat Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.02 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1054
Donepezil & Memantine	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1258
Doxepin (Desmethyldoxepin)	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P815
Doxorubicin	Human Plasma	50 to 50,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1386
Doxycycline	Human Plasma	0.1 to 10 µg/mL	LC/MS/MS	0.025 mL	Na Heparin	FREEZE	Richmond Madison	Inactive Inactive	LCMS 511 P1325
Dronedarone (N-Desbutyl Dronedarone)	Human Plasma	0.5 to 300 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1150
Drospirenone & 17α-Ethinyl Estradiol (EE)	Human Plasma	0.5 to 200 ng/mL 2 to 800 pg/mL	LC/MS/MS	0.5 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 545
Duloxetine	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.5 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P882

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Dutasteride & Tamsulosin	Human Plasma	0.025 to 25 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1068
	Human Serum	25 to 25,000 pg/mL	LC/MS/MS	0.1 mL	None	FREEZE	Madison	Inactive	P1130
Efavirenz	Human Plasma	0.1 to 25 µg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMSB 517 P1326
	Human Whole Blood	0.1 to 25 µg/mL	DBS by LC/MS/MS	0.1-0.3 mL	K ₂ EDTA	Room Temp	Richmond	Inactive	LCMSB 517.1
Eicosapentaenoic Acid & Docosahexaenoic Acid (EPA & DHA)	Human Plasma	10 to 5000 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 618
Eicosapentaenoic Acid & Docosahexaenoic Acid (EPA & DHA), Total	Human Plasma	2 to 200 µg/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 619
Eicosapentaenoic Acid Ethyl Ester Docosahexaenoic Acid Ethyl Ester (EPA-EE & DHA-EE)	Human Plasma	0.25 to 250 ng/mL	LC/MS/MS	0.5 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSD 633
Eltrombopag	Human Plasma	100 to 50,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Active	LCMS 723 P1804
Elvitegravir	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1455
Emtricitabine & Tenofovir	Human Plasma	20 to 4000 ng/mL 5 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 468
	Human Plasma	20 to 4000 ng/mL 5 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Active	P947

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Enalapril (Enalaprilat)	Human Plasma	0.25 to 100 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Madison	Inactive	P435
	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 31
	Dog Plasma	0.25 to 400 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Madison	Inactive	P532
Enoxaparin using Factor IIA	Human Plasma	0.03 to 0.16 IU/mL	Chromogenic	0.05 mL	Na Citrate	CRYO	Richmond	Inactive	ICD 327
Enoxaparin using Factor XA	Human Plasma	0.04 to 0.5 IU/mL	Chromogenic	0.05 mL	Na Citrate	CRYO	Richmond	Inactive	ICD 326
Enrofloxacin & Ciprofloxacin	Dog Plasma	10 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1127
	Cat Plasma	10 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1256
Enzalutamide (N-desmethyl enzalutamide)	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1342
Erlotinib	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 390
	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 390.1
	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.025 mL	Na Heparin	FREEZE	Madison	Inactive	P1008
	Human Plasma	5 to 5000 ng/mL	LC/MS/MS	0.025 mL	Na Heparin	FREEZE	Madison	Inactive	P1016
Erythromycin	Human Plasma	0.2 to 20 µg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMS 463
Estazolam	Human Plasma	0.1 to 30 ng/mL	LC/MS/MS	1.0 mL	Na Heparin	FREEZE	Madison	Inactive	P336
17β-Estradiol, Total**	Human Serum	0.025 to 10 ng/mL	LC/MS/MS	0.1 mL	None	CRYO	Richmond	Inactive	LCMS 295

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
17 β -Estradiol & Estrone	Human Serum	1 to 1000 pg/mL 5 to 5000 pg/mL	LC/MS/MS	0.5 mL	None	FREEZE	Richmond	Inactive	LCMSC 350.2
	Human Serum	1 to 1000 pg/mL 5 to 5000 pg/mL	LC/MS/MS	0.25 mL	None	CRYO	Madison	Inactive	P1290
Estrone, Total**	Human Serum	20 to 5000 pg/mL	LC/MS/MS	0.5 mL	None	CRYO	Richmond	Inactive	LCMSC 351.3
Ethanol	Human Plasma	20 to 1000 μ g/mL	GC/FID	0.1 mL	KOx / NaF	FREEZE	Richmond	Inactive	GC 89
Etonogestrel & 17 α -Ethinyl Estradiol (EE)	Human Plasma	25 to 10,000 pg/mL 2 to 800 pg/mL	LC/MS/MS	0.5 mL	KOx / NaF	CRYO	Richmond Madison	Inactive Inactive	LCMSD 603 P1311
17 α -Ethinyl Estradiol (EE) & Drospirenone	Human Plasma	2 to 800 pg/mL 0.5 to 200 ng/mL	LC/MS/MS	0.5 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 545
17 α -Ethinyl Estradiol (EE) & Norethindrone	Human Plasma	2 to 500 pg/mL 50 to 25,000 pg/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 255
17 α -Ethinyl Estradiol (EE) & Norgestrel	Human Plasma	2 to 500 pg/mL 50 to 25,000 pg/mL	LC/MS/MS	0.5 mL 0.25 mL	KOx / NaF	CRYO	Richmond Madison	Inactive Active	LCMSC 256 P1627
17 α -Ethinyl Estradiol 3-Sulfate	Human Plasma	50 to 10,000 pg/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 398
Etoposide	Human Plasma	0.02 to 20 μ g/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 515
Etoricoxib	Human Plasma	5 to 2500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P971
Etravirine & Ritonavir	Human Plasma	0.5 to 500 ng/mL 10 to 10,000 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison Richmond	Inactive	P1031
Exenatide	Human Plasma with Aprotinin	10 to 1000 pg/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSD 566
	Rat Plasma	50 to 5000 pg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSF 566.1

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Everolimus	Human Whole Blood	0.2 to 200 ng/mL	LC/MS/MS	0.5 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1022
Ezetimibe	Human Plasma	0.2 to 100 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 439
	Human Plasma	0.2 to 100 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P945
Ezetimibe, Total	Human Plasma	1.0 to 500 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 440
	Human Plasma	1.0 to 500 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P944
Fenofibric Acid	Human Plasma	0.05 to 30 µg/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 235
	Human Plasma	0.05 to 30 µg/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P1043
Fentanyl	Human Plasma	25 to 10,000 pg/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSB 186.5
	Human Plasma	5 to 2000 pg/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 186.4
	Human Plasma	5 to 5000 pg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1405
	Human Serum	10 to 2000 pg/mL	LC/MS/MS	0.1 mL	None	FREEZE	Madison	Inactive	P869
	Dog Plasma	40 to 40,000 pg/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P966
	Artificial CSF	2 to 800 pg/mL	LC/MS/MS	0.15 mL	None	FREEZE	Madison	Inactive	P1382
	Göttingen Minipig Plasma	5 to 5000 pg/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1491

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Fentanyl (Norfentanyl)	Mouse Plasma	0.04 to 40 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P637
	Rat Plasma	0.04 to 40 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P823
	Rabbit Plasma	0.04 to 40 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P636
	Human Plasma	5 to 2000 pg/mL	LC/MS/MS	0.15 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1159
Fentanyl (Norfentanyl) (Despropionyl Fentanyl)	Human Plasma	10 to 500 pg/mL	LC/MS/MS	0.5 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P624
Fexofenadine	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P1365
	Human Urine	0.05 to 10 µg/mL	LC/MS/MS	0.02 mL	None	FREEZE	Madison	Inactive	P746
Fingolimod	Human Whole Blood	0.025 to 10 ng/mL	LC/MS/MS	1.0 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1224
Fingolimod Phosphate	Human Whole Blood	0.05 to 2.5 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1225
Firocoxib	Dog Plasma	1 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1490
	Dog Plasma	2.5 to 2500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1529
Fluconazole	Human Plasma	20 to 10,000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P791
Flucytosine	Human Plasma	50 to 50,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1125
Flunixin	Horse Plasma	10 to 5000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Madison	Inactive	P1138
Fluoxetine (Norfluoxetine)	Human Plasma	0.25 to 100 ng/mL	LC/MS/MS	0.2 mL	Na Heparin / K ₂ EDTA	FREEZE	Richmond Madison	Inactive Active	LCMS 52 P1563
Flurbiprofen	Human Plasma	50 to 25,000 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1498

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Fluticasone Propionate	Human Plasma	1.0 to 500 pg/mL	LC/MS/MS	1.0 mL	KOx / NaF	FREEZE	Madison	Inactive	P817
Fluticasone Furoate	Human Plasma	0.2 to 40 pg/mL	LC/MS/MS	1.0 mL	KOx / NaF	FREEZE	Madison	Inactive	P1084
Fluticasone Propionate & Salmeterol	Human Plasma	1 to 200 pg/mL	LC/MS/MS	1.0 mL	KOx / NaF	FREEZE	Madison	Inactive	P988
	Human Plasma	0.5 to 200 pg/mL	LC/MS/MS	0.5 mL	KOx / NaF	FREEZE	Madison	Inactive	P1197
Fluvoxamine	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Active	P1967
Formoterol	Human Plasma	0.5 to 250 pg/mL	LC/MS/MS	0.5 mL	Li Heparin with Eserine hemisulfate	FREEZE	Madison	Inactive	P860
	Human Urine	6.0 to 1200 pg/mL	LC/MS/MS	0.1 mL	None	FREEZE	Madison	Inactive	P883
	Human Plasma	0.5 to 250 pg/mL	LC/MS/MS	0.5 mL	K ₃ EDTA with Eserine hemisulfate	FREEZE	Madison	Inactive	P1296
Furosemide	Human Plasma	5 to 5000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 317.1
	Human Plasma	5 to 5000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Active	P1831
	Human Urine	0.2 to 50 µg/mL	LC/MS/MS	0.2 mL 0.05 mL	None	FREEZE	Richmond Madison	Inactive Active	LCMS 317 P1789
GS331007 & Sofosbuvir	Human Plasma	10 to 5000 ng/mL 5 to 2500 ng/mL	LC/MS/MS	0.05 mL	Na F / KO	CRYO	Madison	Inactive	P1300

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Gabapentin	Human Plasma	0.05 to 10 µg/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 359
	Human Plasma	0.05 to 10 µg/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1522
	Human Plasma	50 to 50,000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 359.3
Galanthamine (Galantamine)	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.25 mL	K ₂ EDTA / Na Heparin	FREEZE	Richmond Madison	Inactive Inactive	LCMSC 312 P1519
Gatifloxacin	Human Plasma	0.025 to 10 µg/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSB 285
Gefitinib	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond Middleton	Inactive Active	LCMS 522 P1690
Glimepiride	Human Plasma	2 to 1000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 266
Glipizide	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 137
Glyburide	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.25 mL 0.05 mL	K ₃ EDTA / K ₂ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMS 159 P1729
Glyburide <i>Lower range for pediatric studies</i>	Human Plasma	0.10 to 50 ng/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 159.1
Guaifenesin	Human Plasma	8 to 4000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P1172
	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.075 mL	Na Heparin	FREEZE	Madison	Inactive	P973
	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.075 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1465
Guaifenesin & Dextromethorphan	Human Plasma	8 to 4000 ng/mL 0.01 to 5 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P1285
Guaifenesin & Codeine & Morphine	Human Plasma	2 to 2000 ng/mL 0.1 to 100 ng/mL 0.2 to 20 ng/mL	LC/MS/MS	0.3 mL	Na Heparin	FREEZE	Madison	Inactive	P919

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Haloperidol	Human Plasma	0.025 to 10 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Richmond	Inactive	LCMSC 95
Herceptin	Human Serum	0.5 to 200 µg/mL	GYROS	0.25 mL	None	CRYO	Richmond	Active	ICD 178
Hydrochlorothiazide	Human Plasma	2 to 200 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSD 205.5
	Human Urine	0.1 to 25 µg/mL	LC/MS/MS	0.25 mL	None	FREEZE	Richmond	Inactive	LCMSD 205.3
Hydrocodone (Hydromorphone)	Human Plasma	0.1 to 100 ng/mL 0.05 to 50 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMSC 492 P1437
	Rat Plasma	0.2 to 200 ng/mL 0.1 to 100 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSC 492.1
Hydrocodone (Hydromorphone)	Dog Plasma	10 to 1000 ng/mL 2 to 200 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSC 492.2
	Rabbit Plasma	0.2 to 200 ng/mL 0.1 to 100 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSC 492.3
	Mouse Plasma	0.2 to 200 ng/mL 0.1 to 100 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSC 492.8
Hydrocodone (Hydromorphone)	Human Dialysate	0.02 to 20 ng/mL 0.01 to 10 ng/mL	LC/MS/MS	0.3 mL	None	FREEZE	Richmond	Inactive	LCMSD 492.5
	Human Urine	10 to 10,000 ng/mL 5 to 5000 ng/mL	LC/MS/MS	0.25 mL	None	FREEZE	Richmond	Inactive	LCMSC 492.4

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Hydrocodone (Hydromorphone) (Norhydrocodone)	Human Plasma	0.1 to 100 ng/mL 0.05 to 50 ng/mL 0.1 to 100 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 492.6
	Human Urine	10 to 10,000 ng/mL 5 to 5000 ng/mL 10 to 10,000 ng/mL	LC/MS/MS	0.025 mL	None	FREEZE	Richmond	Inactive	LCMSC 492.7
	Human Plasma	0.1 to 100 ng/mL 0.05 to 50 ng/mL	LC/MS/MS	0.5 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P623
	Hamster Plasma	1 to 400 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P659
Hydrocodone & Acetaminophen	Human Plasma	0.1 to 50 ng/mL 100 to 15,000 ng/mL	LC/MS/MS	0.15 mL	K ₂ EDTA	FREEZE	Madison	Active	P1305
Hydrocodone & Acetaminophen & Chlorpheniramine	Human Plasma	0.1 to 50 ng/mL 100 to 50,000 ng/mL 0.25 to 125 ng/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1066
Ibuprofen	Human Plasma	0.2 to 50 µg/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond Madison	Inactive Inactive	LCMSC 409 P1431
Ibuprofen Enantiomers	Human Plasma	0.1 to 25 µg/mL 0.1 to 25 µg/mL	LC/MS/MS	0.1 mL 0.05 mL	Na Heparin	FREEZE	Richmond Madison	Inactive Inactive	LCMSB 561 P1609
IFN Gamma	Human Serum	31.3 to 1000 pg/mL	ELISA	0.2 mL	None	CRYO	Richmond	Inactive	ICD 278
IGF-1	Human Serum	10 to 1000 ng/mL	LC/MS/MS	0.1 mL	None	CRYO	Richmond	Inactive	LCMSC 558
IL-1β	Human Serum	7.82 to 250 pg/mL	ELISA	0.4 mL	None	FREEZE	Richmond	Inactive	ICD 151
IL-2	Human Serum	62.5 to 2000 pg/mL	ELISA	0.2 mL	None	FREEZE	Richmond	Inactive	ICD 150

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
IL-4	Human Serum	31.3 to 2000 pg/mL	ELISA	0.1 mL	None	CRYO	Richmond	Inactive	ICD 277
IL-6	Human Serum	5 to 320 pg/mL	ELISA	0.2 mL	None	FREEZE	Richmond	Inactive	ICD 141
IL-10	Human Serum	10 to 500 pg/mL	ELISA	0.3 mL	None	FREEZE	Richmond	Inactive	ICD 142
Iloperidone (P-88)	Human Plasma	0.01 to 5 ng/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1158
Imatinib	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1010
Ipilimumab	Human Plasma	1 to 100 µg/mL	LC/MS/MS	0.03 mL	K ₂ EDTA	CRYO	Richmond	Active	LCMSF 872
Irbesartan	Human Plasma	2.5 to 2500 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSB 232
Ipratropium	Human Plasma	1 to 400 pg/mL	LC/MS/MS	0.25 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1476
Isopropamide	Human Plasma	0.05 to 10 ng/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P409
Itraconazole (2-Hydroxyitraconazole)	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1079
	Human Plasma	20 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1374
Ivermectin	Dog Plasma	0.05 to 25 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Madison	Inactive	P1254
Ketamine (Norketamine)	Human Serum	5 to 5000 ng/mL 2.5 to 2500 ng/mL	LC/MS/MS	0.2 mL	None	FREEZE	Madison	Inactive	P627
	Rabbit Plasma	10 to 10,000 ng/mL 5 to 5000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P648
	Rat Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.025 mL	Na Heparin	FREEZE	Madison	Inactive	P1179
	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Active	P1751

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
S-Ketamine & R-Ketamine S-Norketamine & R-Norketamine	Cat Plasma	20 to 8000 ng/mL 10 to 4000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P703
	Rat Plasma	5 to 1000 ng/mL 1 to 200 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1163
Ketoconazole	Human Plasma	0.1 to 20 µg/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 202
	Human Plasma	0.1 to 20 µg/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSB 202.1
	Human Plasma	25 to 2500 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 202.2
Ketoprofen	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 162
	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.4 mL	Na Heparin	FREEZE	Madison	Inactive	P747
	Minipig Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P821
Ketoprofen, and Total**	Human Plasma	1.0 to 1000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P767
	Human Urine	5 to 5000 ng/mL	LC/MS/MS	0.025 mL	None	FREEZE	Madison	Inactive	P768
Ketoprofen Enantiomers	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Madison	Inactive	P782
Lacosamide	Human Plasma	0.1 to 20 µg/mL	LC/MS/MS	0.05mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1134
Lamivudine (3TC) & Abacavir	Human Plasma	2.5 to 2500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1165
Lamotrigine See Cocktail Assay "Epilepsy"	Human Plasma	0.1 to 20 µg/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Madison	Inactive	P837
Lamotrigine	Human Plasma	5 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1719

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Lansoprazole	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 178
	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P896
Laropiprant	Human Plasma	0.01 to 10 µM	LC/MS/MS	0.15 mL	Na Heparin	FREEZE	Madison	Inactive	P1124
Ledipasvir	Human Plasma	0.5 to 200 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1393
Letrozole	Human Plasma	0.5 to 200 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1287
Leuprolide	Human Serum	0.025 to 25 ng/mL	LC/MS/MS	0.2 mL	None	FREEZE	Richmond	Inactive	LCMSC 245.1
Levetiracetam	Human Plasma	0.05 to 50 µg/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison	Active	P811
Levodopa & Carbidopa	Human Plasma	5 to 2500 ng/mL 0.5 to 250 ng/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	CRYO	Madison	Inactive	P838
	Rat Plasma	50 to 10,000 ng/mL 25 to 5000 ng/mL	LC/MS/MS	0.02 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1420
Levodopa & Carbidopa (3-O-MethylDopa)	Human Plasma	10 to 5000 ng/mL 10 to 5000 ng/mL 400 to 25,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1571
Levofloxacin	Rabbit Plasma	0.1 to 50 µg/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSB 554

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Levothyroxine T3	Human Plasma	5 to 500 ng/mL 0.2 to 20 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1735
Lidocaine	Rat Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P667
	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P871
	Hanford Minipig Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.03 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1504
Linagliptin	Human Plasma	0.05 to 50 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 642
Liraglutide	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	CRYO	Richmond Madison	Inactive Inactive	LCMSD 631 P1623
Lisdexamfetamine (d-amphetamine)	Human Plasma	0.1 to 100 ng/mL 0.2 to 200 ng/mL	LC/MS/MS	0.4 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1051
Lisinopril	Human Plasma	0.5 to 400 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Madison	Inactive	P1206
	Human Urine	25 to 25,000 ng/mL	LC/MS/MS	0.025 mL	None	FREEZE	Madison	Inactive	P694
	Rat Plasma	1.0 to 1000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P673
Loperamide	Human Plasma	10 to 10,000 pg/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P557
	Human Plasma	10 to 10,000 pg/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 310
Loperamide (Desmethyl loperamide)	Human Plasma	50 to 20000 pg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Middleton	Active	P1824
Lopinavir See Cocktail Assay "Antiviral"	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison Richmond	Active	P1002

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Loratadine (Descarboethoxyloratadine) (3-OHDescarboethoxyloratadine)	Human Plasma	0.025 to 10 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond Madison	Inactive Inactive	LCMS 188.1 P1391
Lorazepam	Human Plasma	0.5 to 50 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond Madison	Inactive Active	LCMSC 142 P1684
	Human Plasma	50 to 60,000 pg/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Active	P1709
Lorazepam, Total**	Human Plasma	2.5 to 500 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 294
Losartan (Acid Metabolite)	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.15 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 208
	Human Urine	5 to 2000 ng/mL 2 to 2000 ng/mL	LC/MS/MS	0.1 mL	None	FREEZE	Richmond	Inactive	LCMSC 208.1
	Human Urine	2 to 2000 ng/mL	LC/MS/MS	0.05 mL	None	FREEZE	Madison	Inactive	P1556
Lovastatin (Lovastatin Acid)	Human Plasma	0.05 to 12.5 ng/mL 0.1 to 25 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	CRYO	Richmond	Inactive	LCMS 267
	Human Plasma	0.05 to 50 ng/mL	LC/MS/MS	0.25 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1240
Lurasidone	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1221
Medroxyprogesterone Acetate	Human Serum	0.02 to 5 ng/mL	LC/MS/MS	0.25 mL	None	FREEZE	Richmond	Inactive	LCMSC 198
	Rabbit Plasma	0.025 to 5 ng/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSD 198.1
Memantine	Human Plasma	0.5 to 50 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1200
	Human Plasma	2 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1093
Memantine & Donepezil	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1258

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Mesalamine (N-acetyl-5-aminosalicylic acid)	Human Plasma	2 to 1000 ng/mL 5 to 2500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1191
Metformin	Human Plasma	2 to 1000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 153
	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Active	LCMSC 153.5 P2061
	Dog Plasma	1 to 1000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSB 153.4
Methadone	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 323
	Human Plasma	2 to 1000 ng/mL	LC/MS/MS	0.025 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1414
Methadone Enantiomers	Human Plasma	5 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 323.1
	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 323.2
Methotrexate (7-Hydroxymethotrexate)	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond Madison	Inactive Inactive	LCMSC 380.1 P1322
	Human Urine	0.05 to 25 µg/mL	LC/MS/MS	0.05 mL	None	FREEZE	Richmond	Inactive	LCMSC 380.2
Methylphenidate	Human Plasma	0.25 to 25 ng/mL	LC/MS/MS	0.10 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 187
	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	CRYO	Richmond	Inactive	LCMS 230.1
	Human Plasma	0.1 to 30 ng/mL	LC/MS/MS	0.1 mL	Na Heparin / K ₂ EDTA	FREEZE	Madison	Inactive	P689
Methylphenidate (Ritalinic Acid)	Beagle Plasma	0.10 to 100 ng/mL 2.0 to 2000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 230
Methylphenidate Enantiomers (Ritalinic Acid Enantiomers)	Human Plasma	0.05 to 50 ng/mL (D) 0.01 to 10 ng/mL (L) 1.0 to 1000 ng/mL (D) 1.0 to 1000 ng/mL (L)	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Madison	Inactive	P779

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Methylphenidate Enantiomers	Human Plasma	0.05 to 50 ng/mL (D) 0.01 to 10 ng/mL (L)	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1234
Methylprednisone & Prednisone (Prednisolone)	Human Plasma	1 to 1000 ng/mL 0.5 to 500 ng/mL 0.5 to 500 ng/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1149
Methyltestosterone	Human Plasma	5 to 30,000 pg/mL	LC/MS/MS	0.5 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 349
	Human Plasma	0.05 to 25 ng/mL	LC/MS/MS	0.5 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 242
Metoprolol	Human Plasma	5 to 1000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P940
	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P1255
Metoprolol (α -Hydroxymetoprolol)	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P1335
Mevalonic Acid	Human Plasma	0.5 to 20 ng/mL	LC/MS/MS	0.5 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P758
	Human Urine	25 to 1000 ng/mL	LC/MS/MS	0.25 mL	None	FREEZE	Madison	Inactive	P759
Midazolam (1-Hydroxymidazolam)	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.3 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 97
	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.15 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1626
	Human Urine	0.05 to 50 ng/mL 1 to 1000 ng/mL	LC/MS/MS	0.2 mL	None	FREEZE	Madison	Inactive	P678
	Human Urine	0.05 to 50 ng/mL 2 to 2000 ng/mL	LC/MS/MS	0.2 mL	None	FREEZE	Madison	Inactive	P870

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
(1-Hydroxymidazolam, Total**)	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.15 mL	K ₂ EDTA	FREEZE	Madison	Active	P1774
	Human Urine	1 to 1000 ng/mL	LC/MS/MS	0.2 mL	None	FREEZE	Richmond	Inactive	LCMS 228
Milbemycin Oxime (A3) (A4)	Cat Plasma	2 to 2000 ng/mL 4 to 4000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1303
	Dog Plasma	2 to 2000 ng/mL 4 to 4000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1318
Milnacipran	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1081
Mirtazapine	Human Plasma	0.05 to 100 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 145
MMAE	Cyno Monkey Plasma	10 to 2000 pg/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	CRYO	Richmond	Active	LCMSD 844
	Human Plasma	10 to 2000 pg/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	CRYO	Richmond	Active	LCMSX 844.1
	Rat Plasma	10 to 2000 pg/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	CRYO	Richmond	Active	LCMSX 844.2
Montelukast	Human Plasma	5 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	-80	Richmond	Inactive	LCMSC 385
Morphine (Morphine-3β-D-glucuronide) (Morphine-6β-D-glucuronide)	Human Plasma	0.1 to 25 ng/mL 2 to 500 ng/mL 0.5 to 125 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1286
	Human Plasma	0.1 to 50 ng/mL 3 to 1500 ng/mL 1 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Active	P1642

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Morphine (Morphine-3 β -glucuronide) (Morphine-6 β -glucuronide)	Human Plasma	0.5 to 50 ng/mL 10 to 1000 ng/mL 2 to 200 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 454
Morphine (Morphine-6 β -D-glucuronide)	Human Plasma	0.3 to 120 ng/mL 0.9 to 360 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1294
Morphine (Morphine-3 β -glucuronide) (Morphine-6 β -glucuronide) Codeine	Human Plasma	0.2 to 20 ng/mL 2 to 200 ng/mL 0.5 to 50 ng/mL 1 to 100 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 396
Morphine & Codeine & Guafenesin	Human Plasma	0.2 to 20 ng/mL 0.1 to 100 ng/mL 2 to 2000 ng/mL	LC/MS/MS	0.3 mL	Na Heparin	FREEZE	Madison	Inactive	P919
Moxifloxacin	Human Plasma	25 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMSB 276 P1317
Naloxone & Buprenorphine (Norbuprenorphine)	Human Plasma	2 to 1000 pg/mL 20 to 10,000 pg/mL 20 to 10,000 pg/mL	LC/MS/MS	0.5 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1160
Naloxone	Human Plasma	0.02 to 40 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison	Active	P1956
Naloxone, Total	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1096
Naltrexone 6 β -naltrexol & Oxycodone	Human Plasma	0.1 to 100 ng/mL 0.5 to 500 ng/mL 0.1 to 100 ng/mL	LC/MS/MS	0.15 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1193
Naltrexone 6 β -naltrexol	Human Plasma	0.01 to 2 ng/mL 0.1 to 20 ng/mL	LC/MS/MS	0.5 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1230
	Human Plasma	5 to 5000 pg/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1404
	Göttingen Minipig Plasma	5 to 1000 pg/mL 5 to 100 pg/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1493

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Naproxen	Human Plasma	0.1 to 100 µg/mL	LC/MS/MS	0.05 mL	Na Heparin / Li Heparin	FREEZE	Richmond Madison	Inactive Inactive	LCMS 486 P1618
Navelbine aka Vinorelbine	Human Plasma	2 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMS 539
Nevirapine	Human Plasma	25 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMS 250 P1330
Niacin <i>aka Vitamin B3, or nicotinic acid</i> (Nicotinuric acid) aka NUA	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.25mL	Na Heparin	CRYO	Richmond	Inactive	LCMS 264
Niacin aka Vitamin B3, or nicotinic acid (Nicotinuric acid) aka NUA	Human Urine	0.02 to 20 µg/mL 0.2 to 200 µg/mL	LC/MS/MS	0.1 mL	None	FREEZE	Richmond	Inactive	LCMSB 264.1
(1-Methyl-Nicotinamide) <i>aka NMA</i> (N-Methyl-2-Pyridone-5-carboxamide) <i>aka 2PY</i>	Human Urine	0.5 to 250 µg/mL 2.5 to 250 µg/mL	LC/MS/MS	0.05 mL	None	FREEZE	Richmond	Inactive	LCMS 274.1
(1-Methyl-Nicotinamide) <i>aka NMA</i> (N-Methyl-2-Pyridone-5-carboxamide) <i>aka 2PY</i>	Human Plasma	0.1 to 10 µg/mL 0.2 to 20 µg/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 274
(1-Methyl-Nicotinamide) <i>aka NMA</i> (N-Methyl-2-Pyridone-5-carboxamide) <i>aka 2PY</i>	Human Plasma	0.1 to 10 µg/mL 0.2 to 20 µg/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSB 274.2
(1-Methyl-Nicotinamide) <i>aka NMA</i> (N-Methyl-2-Pyridone-5-carboxamide) <i>aka 2PY</i> , (N-Methyl-4-Pyridone-3-carboxamide) <i>aka 4PY</i>	Rat Plasma	0.1 to 10 µg/mL 0.2 to 20 µg/mL 0.2 to 20 µg/mL	LC/MS/MS	0.025 mL	Li Heparin	FREEZE	Richmond	Inactive	LCMSC 274.5
(1-Methyl-Nicotinamide) <i>aka NMA</i> (N-Methyl-2-Pyridone-5-carboxamide) <i>aka 2PY</i> (N-Methyl-4-Pyridone-3-carboxamide) <i>aka 4PY</i>	Human Urine	1 to 250 µg/mL 2 to 500 µg/mL 2 to 500 µg/mL	LC/MS/MS	0.05 mL	None	FREEZE	Richmond Madison	Inactive Active	LCMS 274.6 P1999

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Nicotine (Cotinine)	Human Plasma	0.5 to 100 ng/mL 2.5 to 500 ng/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P538
Nicotine (Cotinine) (Trans-3'-hydroxycotinine)	Human Plasma	0.2 to 25 ng/mL 1 to 125 ng/mL 1 to 125 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1715
Nicotine (Cotinine) (Trans-3'-hydroxycotinine) (Nicotine-N-glucuronide) (Cotinine-N-glucuronide) (Trans-3'-Hydroxycotinine-O-glucuronide)	Human Urine	50 to 10,000 ng/mL 50 to 10,000 ng/mL 50 to 10,000 ng/mL 50 to 10,000 ng/mL 100 to 20,000 ng/mL 100 to 20,000 ng/mL	LC/MS/MS	0.05 mL	None	CRYO	Madison	Active	P1798
Nilotinib	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1011
Norelgestromin <i>aka 17-desacetyl norgestimate</i>	Human Plasma	0.02 to 10 ng/mL	LC/MS/MS	0.5 mL 0.1 mL	KOx / NaF	CRYO	Richmond Madison	Inactive Active	LCMSC 372 P1911
Norethindrone & 17α-Ethinyl Estradiol (EE)	Human Plasma	50 to 25,000 pg/mL 2 to 500 pg/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 255
Norgestrel & 17α-Ethinyl Estradiol (EE)	Human Plasma	50 to 25,000 pg/mL 2 to 500 pg/mL	LC/MS/MS	0.5 mL 0.25 mL	KOx / NaF	CRYO	Richmond Madison	Inactive Active	LCMSC 256 P1627

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Octreotide	Human Plasma	0.025 to 25 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Richmond	Active	LCMSC 296
	Human Serum	0.0286 to 28.6 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 296.4
	Monkey Plasma with Aprotinin	5 to 250 ng/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	CRYO	Richmond	Active	LCMSC 296.2
	Monkey Plasma with Aprotinin	0.1 to 25 ng/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	CRYO	Richmond	Inactive	LCMSC 296.1
	Rabbit Plasma	1 to 100 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	CRYO	Richmond	Inactive	LCMSC 296.3
Olanzapine (Desmethyloanzapine)	Human Plasma	0.025 to 25 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 84
Olopatadine	Human Plasma	0.05 to 60 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 697
Omeprazole	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 131
Omeprazole (5-Hydroxyomeprazole) (Omeprazole sulphone)	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P749
Omeprazole (5-Hydroxyomeprazole)	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Richmond	Inactive	LCMSC 131.2
	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P1009
	Horse Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P1725
Omeprazole Acetylsalicylic Acid (Salicylic Acid)	Human Plasma	4 to 2000 ng/mL 20 to 10,000 ng/mL 100 to 50,000 ng/mL	LC/MS/MS	0.075 mL	NaF / KOx	CRYO	Madison	Inactive	P1353

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Ondansetron	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA / K ₂ EDTA	FREEZE	Madison	Inactive	P1434
Oxcarbazepine	Human Plasma	0.1 to 5 µg/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Madison	Inactive	P850
(Monohydroxyoxcarbazepine aka MHD)	Human Plasma	1 to 50 µg/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Madison	Inactive	P886
Oxybutynin Enantiomers (Desethyloxybutynin enantiomers)	Human Plasma	0.5 to 200 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMS 411
Oxybutynin	Human Plasma	0.05 to 25 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1301
Oxycodone	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1140
Oxycodone (noroxycodone) (oxymorphone) (noroxymorphone)	Human Plasma	0.02 to 10 ng/mL 0.02 to 10 ng/mL 0.02 to 10 ng/mL 0.05 to 10 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1227
Oxycodone & Acetaminophen	Human Plasma	0.1 to 100 ng/mL 100 to 15,000 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1310
Oxycodone & Naltrexone 6β-naltrexol	Human Plasma	0.1 to 100 ng/mL 0.5 to 500 ng/mL	LC/MS/MS	0.15 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1193
Oxymorphone	Human Plasma	10 to 1000 pg/mL	LC/MS/MS	0.5 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P820
Oxymorphone (6-OH-oxymorphone)	Human Plasma	0.025 to 5 ng/mL 0.01 to 2 ng/mL	LC/MS/MS	0.25 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1148
	Human Plasma	0.1 to 10 ng/mL	LC/MS/MS	0.25 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P930

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Paclitaxel (Taxol ®)	Human Plasma	0.1 to 100 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 163.2
	Human Plasma	10 to 5000 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	CRYO	Richmond	Inactive	LCMSC 163.4
Paclitaxel (Taxol ®), Unbound	Human Plasma Ultrafiltrate	1 to 1000 ng/mL	LC/MS/MS	0.35 mL	Na Heparin	CRYO	Richmond	Inactive	LCMSC 637.3
Paclitaxel (Taxol ®), Total**	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	CRYO	Richmond Madison	Inactive Active	LCMSC 637.1 P1758
Paroxetine	Human Plasma	0.25 to 50 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 161
	Human Plasma	0.25 to 50 ng/mL	LC/MS/MS	0.2 mL	Na Heparin / K ₃ EDTA	FREEZE	Madison	Inactive	P776
Pazopanib	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1101
Pembrolizumab (Keytruda)	Human Serum	20 to 2560 ng/mL	ELISA	0.03 mL	None	CRYO	Richmond	Active	ICD 758
Perampanel	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1299
Phenethylamine	Human Urine	1.13 to 501 ng/mL	LC/MS/MS	0.2 mL	None	FREEZE	Madison	Inactive	P655
Phenobarbital See Cocktail Assay "Epilepsy"	Human Plasma	0.1 to 50 µg/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Madison	Inactive	P837
Phenteramine & Topiramate	Human Plasma	0.1 to 100 ng/mL 5 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Active	P1194
Phenylephrine, Total**	Human Plasma	5 to 1000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Madison	Inactive	P806
	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	Li Heparin	CRYO	Richmond Madison	Inactive Inactive	LCMS 257
	Human Urine	100 to 5000 ng/mL	LC/MS/MS	0.05 mL	None	CRYO	Madison	Inactive	P958

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Phenylephrine (Phenylephrine Glucuronide)	Human Urine	2 to 200 ng/mL	LC/MS/MS	0.2 mL	None	CRYO	Madison	Inactive	P956
(3-Hydroxymandelic acid)	Human Urine	100 to 5000 ng/mL	LC/MS/MS	0.05 mL	None	CRYO	Madison	Inactive	P957
Phenylephrine	Human Plasma	10 to 2500 pg/mL	LC/MS/MS	0.25 mL	Li Heparin	CRYO	Richmond	Inactive	LCMSC 392.1
	Human Plasma	10 to 2500 pg/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	CRYO	Madison	Inactive	P898
	Human Plasma	10 to 2500 pg/mL	LC/MS/MS	0.15 mL	Li Heparin	CRYO	Madison	Inactive	P1436
Phenytoin, Total**	Human Plasma	20 to 5000 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSB 418
	Human Plasma	20 to 10,000 ng/mL	LC/MS/MS	0.025 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSB 418.1
	Human Plasma	20 to 10,000 ng/mL	LC/MS/MS	0.025 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 418.2
Phenytoin Phenytoin, Total **	Human Plasma	0.05 to 15 µg/mL 0.1 to 30 µg/mL	LC/MS/MS	0.05 mL 0.025 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P639
Pioglitazone	Human Plasma	25 to 2500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1085
Pioglitazone MIII, MIV Pioglitazone	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1596
Pioglitazone Keto Pioglitazone (MIII), Hydroxy Pioglitazone (MIV)	Human Plasma	25 to 2500 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1215
Pitavastatin (Pitavastatin Lactone)	Human Plasma	1 to 200 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1187
	Dog Plasma	1 to 200 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1503
	Rat Plasma	1 to 200 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1545

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Pravastatin	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMS 47
Praziquantel	Dog Plasma	10 to 4000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P989
	Dog Plasma	2 to 2000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P1065
	Cat Plasma	10 to 4000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P831
	Cat Plasma	4 to 4000 ng/mL	LC/MS/MS	0.025 mL	Na Heparin	FREEZE	Madison	Active	P1716
Prednisone (Prednisolone)	Human Plasma	0.5 to 1000 ng/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P955
	Rat Plasma	0.25 to 250 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Madison	Inactive	P984
Prednisone & Methylprednisolone (Prednisolone)	Human Plasma	0.5 to 500 ng/mL 1 to 1000 ng/mL 0.5 to 500 ng/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1149
Pregabalin	Human Plasma	20 to 20,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMSC 487 P1392
	Human Plasma	20 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1402
Progesterone	Human Plasma	0.05 to 50 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSC 431
	Rabbit Plasma	0.5 to 50 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSC 431.1
Proguanil	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 530
Propranolol	Human Plasma	1 to 600 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	CRYO	Madison	Inactive	P1544

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Propranolol (4-Hydroxypropranolol)	Human Plasma with Ascorbic Acid	0.5 to 250 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Richmond	Inactive	LCMSB 191
	Human Urine with Ascorbic Acid	1 to 250 ng/mL	LC/MS/MS	0.25 mL	None	CRYO	Richmond	Inactive	LCMSB 191.1
Propranolol, Total** (4-Hydroxypropranolol)	Human Plasma	2 to 600 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	CRYO	Richmond	Inactive	LCMSB 281.2
	Human Plasma	2 to 600 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	CRYO	Richmond	Inactive	LCMSC 281.3
	Human Plasma	2 to 600 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	CRYO	Madison	Inactive	P1520
Pseudoephedrine	Human Plasma	2.5 to 500 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 201
	Human Plasma	2 to 2500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1470
Pseudoephedrine & Dextromethorphan	Human Plasma	0.8 to 400 ng/mL 10 to 5000 pg/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P617
Pseudoephedrine & Dextromethorphan (Dextrophan)	Human Plasma	2.50 to 2500 ng/mL 0.200 to 200 ng/mL 2.50 to 2500 ng/mL	LC/MS/MS	0.025 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSC 690
Quetiapine	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSB 430
Raltegravir See "Cocktail Assay Antiviral"	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison Richmond	Active	P1002
Raltegravir & Ritonavir	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1014
Ramipril (Ramiprilat)	Human Plasma	0.05 to 50 ng/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	CRYO	Richmond	Inactive	LCMS 311

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Ranitidine	Human Plasma	2.5 to 2500 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P873
Ranolazine	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P934
Ranolazine (RS-94827 Metabolite)	Human Plasma	2 to 2000 ng/mL	LC/MS/MS	0.25 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1015
Repaglinide	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 460
	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Active	P2006
Ribavirin	Human Plasma	5 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 510
Rifabutin (25-O-Desacetylirifabutin)	Human Plasma	2 to 800 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P587
Rifampin	Human Plasma	0.1 to 10 µg/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P941
Rilpivirine (E-isomeric form)	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P1496
Risperidone (9-Hydroxyrisperidone)	Human Plasma	0.1 to 60 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1019
	Human Plasma	0.1 to 60 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P1411
	Human Serum	0.1 to 30 ng/mL	LC/MS/MS	1.0 mL	None	FREEZE	Madison	Inactive	P361
	Human Urine	1 to 300 ng/mL	LC/MS/MS	0.2 mL	None	FREEZE	Madison	Inactive	P1034
Ritonavir	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Richmond	Inactive	LCMS 210.2

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Ritonavir See Cocktail Assay "Antiviral"	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison Richmond	Active	P1002
Ritonavir & Atazanavir	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA / K ₂ EDTA	FREEZE	Madison Richmond	Inactive Inactive	P1012 LCMSC 210.4
Ritonavir & Etravirine	Human Plasma	10 to 10,000 ng/mL 0.5 to 500 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison Richmond	Inactive	P1031
Ritonavir & Tipranavir	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1020
Ritonavir & Raltegravir	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1087
Rivaroxaban	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1488
	Cyno Monkey Plasma	1 to 500 ng/mL	LC/MS/MS	0.05 mL	Na Citrate	FREEZE	Madison	Inactive	P1110
Rizatriptan	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P845
Rivastigmine	Human Plasma	0.2 to 20 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1162
Roflumilast (Roflumilast N-Oxide)	Human Plasma	0.05 to 25 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSD 664

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Ropinirole	Human Plasma	10 to 5000 pg/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Madison	Inactive	P736
	Minipig Plasma	10 to 5000 pg/mL	LC/MS/MS	0.2 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1080
Ropinirole N-Despropylropinirole	Human Plasma	10 to 5000 pg/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1088
Ropinirole N-Despropylropinirole	Human Plasma	0.03 to 30 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1139
Rosiglitazone (N-Desmethylrosiglitazone)	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 322.1
Rosiglitazone	Human Plasma	2 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 322
	Rat Plasma	2 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 322.2
Rosuvastatin (N-Desmethylrosuvastatin)	Human Plasma	0.1 to 100 ng/mL 0.05 to 50 ng/mL	LC/MS/MS	0.25 mL	K ₂ EDTA	CRYO	Madison	Inactive	P922
	Human Plasma	0.1 to 100 ng/mL 0.05 to 50 ng/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	CRYO	Richmond	Inactive	LCMSC 393.3
Rotigotine	Human Plasma	2 to 1000 pg/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1209
Rufinamide	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1136
Ruxolitinib	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1302

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Acetylsalicylic Acid (Salicylic Acid)	Human Plasma	0.02 to 10 µg/mL 0.1 to 50 µg/mL	LC/MS/MS	0.05 mL	KOx / NaF	CRYO	Richmond Middleton	Inactive Active	LCMSC 425 P1693
Acetylsalicylic Acid (Salicylic Acid) Omeprazole	Human Plasma	20 to 10,000 ng/mL 100 to 50,000 ng/mL 4 to 2000 ng/mL	LC/MS/MS	0.075 mL	KOx / NaF	CRYO	Madison	Inactive	P1353
Salmeterol	Human Plasma	1 to 100 pg/mL	LC/MS/MS	1.0 mL	KOx / NaF	FREEZE	Madison	Inactive	P798
Salmeterol & Fluticasone Propionate	Human Plasma	1 to 200 pg/mL	LC/MS/MS	1.0 mL	KOx / NaF	FREEZE	Madison	Inactive	P988
Salmon Calcitonin	Human Plasma	5 to 500 pg/mL	LC/MS/MS	0.3 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSD 540.1
Saxagliptin (5-hydroxysaxagliptin)	Human Plasma	0.1 to 100 ng/mL 0.2 to 200 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	CRYO	Madison Richmond	Inactive	P1174
Selegiline (N-Desmethylselegiline) (Amphetamine) (Methamphetamine) (Phenethylamine)	Human Plasma	0.01 to 5 ng/mL 0.04 to 20 ng/mL 0.05 to 25 ng/mL 0.05 to 25 ng/mL 0.01 to 5 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P985
Sertraline	Human Plasma	0.2 to 200 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P1644
Sertraline (Desmethylsertraline)	Human Plasma	0.5 to 200 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 98.1
Sildenafil (Desmethylsildenafil)	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.25 mL	Na Heparin / K ₃ EDTA	CRYO	Richmond	Inactive	LCMS 231
Simvastatin (Simvastatin Acid)	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Madison	Inactive	P980
Sitagliptin	Human Plasma	1 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1133

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Sofosbuvir & GS331007	Human Plasma	5 to 2500 ng/mL 10 to 5000 ng/mL	LC/MS/MS	0.05 mL	Na F / KO	CRYO	Madison	Inactive	P1300
Solifenacin	Human Plasma	0.1 to 25 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P950
Sufentanil	Human Plasma	1 to 250 pg/mL	LC/MS/MS	0.5 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSC 239
	Human Urine	5 to 1000 pg/mL	LC/MS/MS	0.25 mL	None	CRYO	Richmond	Inactive	LCMSC 239.1
Sumatriptan	Human Plasma	0.2 to 100 ng/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 174
	Pig Plasma	0.2 to 100 ng/mL	LC/MS/MS	0.25 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 174.3
	Mouse Plasma	0.2 to 100 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 174.4
Sunitinib (N-Desethylsunitinib)	Human Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMSC 457 P1612
Tacrolimus	Human Whole Blood	0.25 to 100 ng/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMS 356 P1384
	Human Whole Blood	0.1 to 100 ng/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 356.2
	Human Whole Blood	10 to 4000 pg/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	FREEZE	Madison	Inactive	P1399
	Dog Plasma	0.05 to 25 ng/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P750
Tacrolimus	Pig Plasma	0.05 to 25 ng/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P969
Tamsulosin	Human Plasma	0.05 to 25 ng/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P682
Tamsulosin & Dutasteride	Human Plasma	0.025 to 25 ng/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1068

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Tapentadol	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1129
Telaprevir	Human Plasma	0.1 to 20 µg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1153
(S)-Telaprevir	Human Plasma	0.1 to 20 µg/mL	LC/MS/MS	0.1 mL	K ₂ EDTA with 5% H ₃ PO ₄	FREEZE	Madison	Inactive	P1177
Telmisartan	Human Plasma	2 to 1000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 408
Tenofovir & Emtricitabine	Human Plasma	5 to 1000 ng/mL 20 to 4000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 468
	Human Plasma	5 to 1000 ng/mL 20 to 4000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Active	P947
Teriparatide	Human Plasma	10 to 500 pg/mL	LC/MS/MS	0.2 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMSF 661
	Rat Plasma	200 to 20,000 pg/mL	LC/MS/MS	0.05 mL	Na Heparin	CRYO	Richmond	Inactive	LCMSE 661.1
Terfenadine (Fexofenadine)	Human Plasma	0.05 to 50 ng/mL 0.5 to 500 ng/mL	LC/MS/MS	0.5 mL	Na Heparin	FREEZE	Madison	Inactive	P473
Terconazole	Balb/c Mouse Plasma	1 to 100 ng/mL	LC/MS/MS	0.025 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMSC 217.1

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Testosterone (Dihydrotestosterone)	Human Serum	50 to 10,000 pg/mL 10 to 5000 pg/mL	LC/MS/MS	0.15 mL	None	FREEZE	Richmond	Inactive	LCMSC 260.6
	Human Serum	25 to 12,500 pg/mL 10 to 5000 pg/mL	LC/MS/MS	0.25 mL	None	CRYO	Richmond	Inactive	LCMSD 260.9
	Human Serum	0.1 to 50 ng/mL 0.05 to 10 ng/mL	LC/MS/MS	0.25 mL	None	FREEZE	Richmond	Inactive	LCMSC 260.10
	Human Serum	0.1 to 50 ng/mL 0.05 to 10 ng/mL	LC/MS/MS	0.1 mL	None	FREEZE	Madison	Inactive	P1614
	Rabbit Serum	25 to 12,500 pg/mL 50 to 10,000 pg/mL	LC/MS/MS	0.25 mL	None	FREEZE	Richmond	Inactive	LCMSD 260.7
Testosterone, Free (unbound)	Human Serum Ultrafiltrate	1 to 200 pg/mL	LC/MS/MS	0.2 mL UF from 0.5 mL serum	None	FREEZE	Richmond Madison	Inactive	LCMSC 247
Ticagrelor (Deshydroxyethylticagrelor)	Human Plasma	10 to 1000 ng/mL 5 to 500 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1238
Tiotropium	Human Plasma	0.507 to 203 pg/mL	LC/MS/MS	0.5 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1086
	Human Plasma	0.2 to 100 pg/mL	LC/MS/MS	0.5 mL	K ₂ EDTA	CRYO	Madison	Inactive	P1250
Tipranavir & Ritonavir	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1020
TNF- α	Human Serum	15.6 to 1000 pg/mL	ELISA	0.4 mL	None	FREEZE	Richmond	Inactive	ICD 134
Tobramycin	Human Plasma	10 to 400 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P790
	Human Urine	100 to 20,000 ng/mL	LC/MS/MS	0.05 mL	None	FREEZE	Madison	Inactive	P769
Tolbutamide	Human Plasma	0.1 to 100 μ g/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 226

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Tolbutamide (Carboxytolbutamide) (4-Hydroxytolbutamide)	Human Urine	5 to 1000 ng/mL 0.6 to 300 µg/mL 0.3 to 150 µg/mL	LC/MS/MS	0.02 mL	None	FREEZE	Madison	Inactive	P738
	Human Plasma	0.1 to 100 µg/mL 5 to 5000 ng/mL 2.5 to 2500 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P737
Topiramate	Human Plasma	10 to 10,000 ng/mL	LC/MS/MS	0.1mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMS 470
	Human Plasma	5 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1144
Topiramate (See Cocktail Assay "Epilepsy")	Human Plasma	0.1 to 50 µg/mL	LC/MS/MS	0.1 mL	Na Heparin	CRYO	Madison	Inactive	P837
Topiramate & Phenteramine	Human Plasma	5 to 5000 ng/mL 0.1 to 100 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Active	P1194
Trametinib	Human Plasma	0.25 to 100 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive Active	LCMSC 671 P1970
Treprostinil	Human Plasma	0.025 to 10 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1313
	Rat Plasma	0.1 to 50 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1439
Triamcinolone	Human Plasma	0.01 to 2.5 ng/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	CRYO	Richmond	Inactive	LCMSC 315
	Human Plasma	1 to 1000 ng/mL	LC/MS/MS	0.1 mL	K ₃ EDTA	CRYO	Richmond	Inactive	LCMS 315.1
Triazolam	Human Plasma	0.1 to 25 ng/mL	LC/MS/MS	0.1 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 662 P1963
Ulipristal	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1226
	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P1278

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Valganciclovir (Ganciclovir)	Human Plasma	1 to 500 ng/mL 10 to 5000 ng/mL	LC/MS/MS	0.05 mL	Na Citrate	CRYO	Richmond	Inactive	LCMSC 410
Valproic Acid	Human Plasma	2 to 100 µg/mL	LC/MS/MS	0.05 mL	Na Heparin	FREEZE	Madison	Inactive	P885
Vancomycin	Human Plasma	0.1 to 100 µg/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Richmond	Inactive	LCMSC 645
	Human Serum	0.05 to 50 µg/mL	LC/MS/MS	0.01	None	CRYO	Madison	Active	P1864
Venlafaxine (O-Desmethylvenlafaxine)	Human Plasma	2 to 200 ng/mL	LC/MS/MS	0.5 mL 0.2 mL	K ₂ EDTA	FREEZE	Richmond Madison	Inactive Inactive	LCMS 531 P1570
	Human Plasma	2 to 500 ng/mL	LC/MS/MS	0.025 mL	K ₂ EDTA	FREEZE	Madison	Active	P1778
Verapamil Enantiomers (Norverapamil Enantiomers)	Human Plasma	0.5 to 250 ng/mL	LC/MS/MS	0.4 mL	Na Heparin	FREEZE	Madison	Inactive	P671
Vinorelbine	Human Plasma	2 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	CRYO	Richmond	Inactive	LCMS 539
Voriconazole (Voriconazole-N-Oxide)	Human Plasma	10 to 5000 ng/mL	LC/MS/MS	0.1 mL	Na Heparin	FREEZE	Madison	Inactive	P968
Warfarin Enantiomers, (unbound)	Human Plasma Ultrafiltrate	0.5 to 25 ng/mL	LC/MS/MS	0.05 mL	EDTA	FREEZE	Madison	Inactive	P921

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Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
Warfarin Enantiomers	Human Serum	5 to 1000 ng/mL	LC/MS/MS	0.5 mL	None	FREEZE	Madison	Inactive	P381
	Human Plasma	5 to 1000 ng/mL	LC/MS/MS	0.25 mL	Na Heparin	FREEZE	Richmond	Inactive	LCMSB 194
	Human Plasma	5 to 1500 ng/mL	LC/MS/MS	0.2 mL	Na Heparin	FREEZE	Madison	Inactive	P1044
S-warfarin (7-OH-S-warfarin)	Human Plasma	5 to 1500 ng/mL 5 to 1000 ng/mL	LC/MS/MS	0.2 mL	Na Citrate / Na Heparin	FREEZE	Madison	Inactive	P832
Zolpidem	Human Plasma	0.5 to 500 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Inactive	P844
Zonisamide	Human Plasma	10 to 5000 ng/mL	LC/MS/MS	0.25 mL	K ₃ EDTA	FREEZE	Richmond	Inactive	LCMS 313
	Human Plasma	10 to 5000 ng/mL	LC/MS/MS	0.05 mL	K ₂ EDTA	FREEZE	Madison	Active	P1981
	Human Serum	10 to 5000 ng/mL	LC/MS/MS	0.25 mL	None	FREEZE	Richmond	Inactive	LCMS 313.1

LIST OF EXPLORATORY BIOMARKER METHODS

June 2023

Compound (Metabolite)	Matrix	Calibration Range	Method	Sample Volume	Anti-Coagulant	Storage Condition	Lab Site	Method Status*	Method I.D.
7 α -hydroxycholest-4-en-3-one (C4)	Human Serum	2 to 500 ng/mL	LC/MS/MS	0.1 mL	None	CRYO	Richmond	Active	LCMSIBM 994
A β 1-40 A β 1-42	Human CSF	29.3 to 15,000 pg/mL 2.93 to 1500 pg/mL	MSD	0.05 mL	None	CRYO	Richmond	Active	ICDBM 29
Amino Acids (Arg, His, Met, Trp)	Human Plasma	1 to 10,000 μ M	LC/MS/MS	0.04 mL	K ₂ EDTA	CRYO	Richmond	Active	LCMSI 895
CXCL4	Human Plasma	0.781 to 50 ng/mL	ELISA	0.02 mL	K ₂ EDTA	CRYO	Richmond	Active	ICDBM 30
Eotaxin-3	Human Plasma	1.95 to 500 pg/mL	MSD	0.1 mL	Na Heparin	CRYO	Richmond	Active	ICDBM 16
IL-6	Human Plasma	0.35 to 2652 pg/mL	ELLA	0.025 mL	K ₂ EDTA	CRYO	Richmond	Active	ICDBM 32
Leukotriene E4	Human Urine	0.01 to 1 ng/mL	LC/MS/MS	1.5 mL	None	CRYO	Richmond	Active	LCMSH 834
Leukotriene E4 Tetranor-PGDM Tetranor-PGEM	Human Urine	0.05 to 10 ng/mL 0.2 to 40 ng/mL 0.2 to 40 ng/mL	LC/MS/MS	0.05 mL	None	CRYO	Richmond	Active	LCMSFBM 952
LIGHT/TNFSF14	Human Plasma	2.14 to 8140 pg/mL	ELLA	0.025 mL	K ₂ EDTA	CRYO	Richmond	Active	ICDBM 38
Periostin	Human Serum	0.0313 to 2 ng/mL	ELISA Shino-Test	0.02 mL	None	CRYO	Richmond	Active	ICDBM 33
pTau	Human CSF	15.61 to 500 pg/mL	ELISA Innotest	0.075 mL	None	CRYO	Richmond	Active	ICDBM 28
sHER-2	Human Serum	12.9 to 7260 pg/mL	ELLA	0.01 mL	None	CRYO	Richmond	Active	ICDBM 19
TARC (thymus and activation-regulated chemokine)	Human Serum	31.2 to 2000 pg/mL	ELISA	0.1 mL	None	CRYO	Richmond	Active	ICDBM 15
Tau	Human CSF	18.75 to 1200 pg/mL	ELISA Innotest	0.025 mL	None	CRYO	Richmond	Active	ICDBM 27
Tetranor-PGDM	Human Urine	0.2 to 10 ng/mL	LC/MS/MS	0.5 mL	None	CRYO	Richmond	Active	LCMSF 873