

## List of Validated Method (January 2010)

Compound	Matrix	LLOQ	Curve Range	Sample Volume	Anticoagulant	Method	Method Located at Malvern
<b>A</b>							
Acetaminophen	Human Plasma	20 ng/mL	20-20000ng/mL	20 µL	Sodium Heparin	LC/MS/MS	Yes
5-Acetylaminio-6-Formylamino-3-Methyluracil/1-Methylxanthine	Human Urine	100/100 ng/mL	100/100-25000/25000 ng/mL	20 µL		LC/MS/MS	Yes
Acetylisovaleryltirosin	Rat Plasma/Dog Plasma	10 ng/mL	10-300 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Albuterol	Plasma	0.2 ng/mL				LC/MS/MS	*
Alendronate	Plasma, Urine	5 ng/mL				LC/MS/MS	*
Alfuzosin	Human Plasma	0.5 ng/mL	0.5-30 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Alprazolam	Human Plasma	0.2 ng/mL	0.2-30 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
4-Aminopyridine	Dog Plasma/Rat Plasma	20 ng/mL	20-10000 ng/mL	40 µL	K2EDTA	LC/MS/MS	Yes
Amlodipine	Human Plasma	0.2 ng/mL	0.2-400 ng/mL	200 µL	K3EDTA/K2EDTA	LC/MS/MS	Yes
Anagrelide	Plasma	0.05 ng/mL				LC/MS/MS	*
Aspirin	Plasma	2 ng/mL				LC/MS/MS	*
Atenolol	Whole Blood	10 ng/mL				HPLC	*
Angiotensin	Rat Blood	2 ng/mL	2-500 ng/mL	100 µL	Sodium EDTA	LC/MS/MS	Yes
Atorvastatin	Human Plasma	0.2 ng/mL	0.2-200 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Azithromycin	Plasma	1 ng/mL				LC/MS/MS	*
<b>B</b>							
Active B-12	Human plasma/serum	8 pmol/L	8-128 pmol/L	173 µL		MEIA	Yes
B-12	Human plasma/serum	100 pg/mL	100-2000 pg/mL	210 µL		MEIA	Yes
Baclofen	Plasma, Urine	15 ng/mL				HPLC	*
Benzodiazepine	Plasma	250-500 pg/mL				LC/MS/MS	*
Bergamottin/6', 7' -Dihydroxybergamottin/Naringenin	Grapefruit Juice	0.1/0.1/0.1 µg/mL	0.1/0.1/0.1-20/20/20 µg/mL			LC/MS/MS	Yes
Bivalirudin	Rat/Human Plasma	50/500 ng/mL	50-10000 ng/mL/500-25000 ng/mL	20/50 µL	K2EDTA/Sodium Citrate	LC/MS/MS	Yes
Bufuralol	Plasma	2 ng/mL				LC/MS/MS	*
Butalbital	Human Plasma		50 50-5000 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Butalbital/Codeine	Human Plasma	50/1 ng/mL	50/1-5000/200 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Butyric Acid	Rat Plasma	10 µg/mL	10-10000 µg/mL	200 µL	K3EDTA	Capillary Gas Chromatography	Yes
<b>C</b>							
Caffeine	Human Plasma	20 ng/mL	20-20000 ng/mL	20 µL	Sodium Heparin	LC/MS/MS	Yes
Caffeine/Paraxanthine	Human Plasma	20/20 ng/mL	20/20-20000/20000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Carbidopa / Levodopa	Plasma	5, 20 ng/mL				LC/MS/MS	*
Carbamazepine	Human Plasma/Serum	50 ng/mL	50-10000 ng/mL, 500-50000 ng/mL, 50-25000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Cabamazepine 10,11-Epoxide/Carbamazepine/Valproic Acid	Human Serum	30/50/1000 ng/mL	30/50/1000-15000/25000/50000 ng/mL	50 µL		LC/MS/MS	Yes
Ceftazidime	Human Plasma	0.2 µg/mL	0.2-50 µg/mL	25 µL	K2EDTA	LC/MS/MS	Yes
Certirizine	Human Plasma	0.5 ng/mL	0.5-400 ng/mL	50 µL	EDTA	LC/MS/MS	Yes
Chloropheniramine/Hydrocodone/ Pseudoephedrine	Human Plasma	0.25/0.05/0.5 ng/mL	0.25/0.05/0.5-12.5/25/250 ng/mL	250 µL	K2EDTA	LC/MS/MS	Yes
Chlorpromazine	Plasma	0.1 ng/mL				HPLC	*
Citalopram	Human Plasma	0.2 ng/mL	0.2-75 ng/mL and 0.2-200 ng/mL	100 µL and 200 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Clindamycin	Plasma	0.5 ng/mL				LC/MS/MS	*
Clobazam/Acetazolamide	Human Plasma	5/500 ng/mL	5/500-500/50000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Clonazepam	Human Plasma/Serum	1 ng/mL	1-1000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Clozapine	Human Plasma	1 ng/mL	1-1000 ng/mL	250 µL	EDTA	LC/MS/MS	Yes
Clozapine/ N-Desmethyloclozapine	Human Plasma	1/1 ng/mL and 5/5 ng/mL	1/1-500/500 ng/mL and 5/5-1000/1000 ng/mL	250 µL and 50 µL	EDTA	LC/MS/MS	Yes
Codeine	Human Plasma	1 ng/mL	1-200 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Codeine / Butalbital	Human Plasma	1, 50 ng/mL	1/50-200/5000	200 µL	K3EDTA	LC/MS/MS	Yes
Colchicine	Human Plasma/WBC	0.02/0.05 ng/mL	0.02-20 ng/mL/0.05-20 ng/mL	100/200 µL	K2EDTA	LC/MS/MS	Yes
Cortisol/6B-Hydroxycortisol	Human urine	1/5 ng/mL	1/5-200/1000 ng/mL	100 µL		LC/MS/MS	Yes
<b>D</b>							
Danazol/Ethisterone	Human Serum	0.5, 0.5 ng/mL	0.5/0.5-100/100 ng/mL	200 µL	NA	LC/MS/MS	Yes
Desformyl-Formoterol	Rat Plasma	0.5 ng/mL	0.5-20 ng/mL	200 µL	Lithium Heparin	LC/MS/MS	Yes
Dextromethorphan/Dextrophan	Human Urine	5/400 ng/mL	5/400-500/40000 ng/mL	50 µL		LC/MS/MS	Yes
Diazepam	Human Plasma/Human Serum	1 ng/mL	1-1000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Diazoxide	Rat Plasma	100 ng/mL	100-5000 ng/mL	20 µL	K2EDTA	LC/MS/MS	Yes
Diazoxide	Dog Plasma	500 ng/mL	500-50000 ng/mL	20 µL	K2EDTA	LC/MS/MS	Yes
Diazoxide	Human Plasma	0.5 µg/mL	0.5-80 µg/mL	20 µL	K2EDTA	LC/MS/MS	Yes
Diclofenac	Plasma	5 ng/mL				HPLC	*

2,2-Dimethyl Butyric Acid	Dog Plasma	10 ng/mL	10-1250 ng/mL	500 µL	K3EDTA	Capillary Gas Chromatography	Yes
Dipyridamole	Plasma	5 ng/mL				LC/MS/MS	*
Docetaxel	Human Plasma	2 ng/mL	2-400 ng/mL	100 µL	Heparin	LC/MS/MS	Yes
Donepezil	Human Plasma	0.1 ng/mL	0.1-50 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Doxycycline	Human Plasma	50 ng/mL	50-10000 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Doxylamine-N-Oxide	Mouse Plasma	1 ng/mL	1-1000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Dronabinol	Plasma	1 ng/mL				LC/MS/MS	*
<b>E</b>							
Esomeprazole	Human Plasma	2 ng/mL	2-600 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Erlotinib	Human Plasma	2 ng/mL	2-1000 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Erythromycin	Plasma	5 ng/mL				LC/MS/MS	*
Ethanol	Sheep Plasma	40 µg/mL	40-3000 µg/mL	400 µL		LC/MS/MS	Yes
Ethisterone	Human Serum	0.5 ng/mL	0.5-100 ng/mL	200 µL		LC/MS/MS	Yes
Ethosuximide	Human Serum	50 ng/mL	50-50000 ng/mL	50 µL		LC/MS/MS	Yes
<b>F</b>							
Famotidine	Plasma	1 ng/mL				LC/MS/MS	*
Felbamate	Human Plasma/Human Serum	10 ng/mL	10-10000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Felodipine	Human Plasma	0.05 ng/mL	0.05-15 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Fenofibric Acid	Human Plasma	250 ng/mL	250-25000 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Fexofenadine/Pseudoephedrine	Human Plasma	5/5 ng/mL	5/5-1000/2000 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Flubiprofen	Plasma	0.05 µg/mL				HPLC	*
Fluoxetine	Plasma	0.5 ng/mL				LC/MS/MS	*
Formoterol	Rat Plasma	0.5 ng/mL	0.5-100 ng/mL	50 µL	Lithium Heparin	LC/MS/MS	Yes
Formoterol	Dog Plasma	50 pg/mL	50-10000 pg/mL	100 µL	Lithium Heparin	LC/MS/MS	Yes
Formoterol	Human Plasma	0.5 pg/mL and 2.5 pg/mL	0.5-30 pg/mL and 2.5-200 pg/mL	500 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Formoterol	Human Urine	2.5 pg/mL and 20 pg/mL	2.5-200 pg/mL and 20-10000 pg/mL	2 mL and 1.0 mL		LC/MS/MS	Yes
<b>G</b>							
Gabapentin	Human Plasma/Human Serum	10 ng/mL	10-10000 ng/mL	20 µL	K2EDTA	LC/MS/MS	Yes
Gemfibrozil	Human Plasma	200 ng/mL	200-20000 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
L-Glutamine/L-Asparagine	Human Plasma	0.2/0.05 µg/mL	0.2/0.05-40/10 µg/mL	100 µL	sodium heparin	LC/MS/MS	Yes
L-Glutamine/L-Asparagine	Human Cerebrospinal Fluid	0.2/0.05 µg/mL	0.2/0.05-40/10 µg/mL	100 µL		LC/MS/MS	Yes
Guaifenesin	Human Plasma	10 ng/mL	10-1500 ng/mL	200 µL	Sodium Heparin	LC/MS/MS	Yes
Guaifenesin/Pseudoephedrine	Human Plasma	10/10 ng/mL	10/10-1500/2000 ng/mL	200 µL	Sodium Heparin/K2EDTA	LC/MS/MS	Yes
<b>H</b>							
Hydralzine	Human Blood	0.5 ng/mL	0.5-200 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
4-Hydroxyestradiol	Rat Plasma/Rat Tissue	0.5 ng/mL, 10 ng/g	0.5-50 ng/mL, 10-500 ng/g	20 µL, 400 µL	Lithium Heparin	LC/MS/MS	Yes
Homocysteine	Human Serum/Plasma	2.5 umol/L	2.5-50 umol/L	200 µL		MEIA	Yes
Human Insulin	Beagle Plasma	30 pg/mL	30-30000 pg/mL	25 µL	K2EDTA	ECL	Yes
<b>I</b>							
Ibuprofen	Plasma	0.2 µg/mL				HPLC	*
Ibuprofen	Human Plasma	2 ng/mL	2-2000 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Imipenem	Human Plasma	0.2 µg/mL	0.2-100 µg/mL	50 µL	Sodium Heparin	LC/MS/MS	Yes
Itraconazole/Hydroxy Itraconazole	Human Plasma	2/2 ng/mL	2/2-5000/5000 ng/mL	1000 µL	Lithium Heparin	HPLC-UV	Yes
Itraconazole/Hydroxy Itraconazole	Human Plasma	1/1 ng/mL	1/1-500/500 ng/mL	100 µL	Lithium Heparin	LC/MS/MS	Yes
<b>K</b>							
Ketoprofen	Human Plasma	5 ng/mL	5-2500 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
<b>L</b>							
Lamotrigine	Human Plasma/Human Serum	5 ng/mL	5-500, 500-50000	200 µL/50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Levetiracetam	Human Plasma/Human Serum	500 ng/mL	500-50000 ng/mL, 0.5-200 µg/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Levofloxacin	Plasma	0.5 µg/mL				HPLC	*
Leukotriene B <sub>4</sub>	Human Plasma	0.2 ng/mL/20 pg/mL	0.2-200 ng/mL/20-20000 pg/mL	100 µL/500 µL	heparin/EDTA	LC/MS/MS	Yes
Leukotriene E <sub>4</sub>	Human urine	0.015 ng/mL	0.015-7.5 ng/mL	1000 µL		LC/MS/MS	Yes
Lidocaine / Prilocaine	Plasma	0.5, 0.5 ng/mL				LC/MS/MS	*
Lidocaine	Human Plasma	10 ng/mL	10-5000 ng/mL	20 µL	K2EDTA	LC/MS/MS	Yes
Lidocaine	Rabbit Plasma	10 ng/mL	10-5000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Loperamide	Human Plasma	10 pg/mL	10-2000 pg/mL	200 µL	EDTA	LC/MS/MS	Yes
<b>M</b>							
Mebendazole	Plasma	1 ng/mL				HPLC	*
Mefloquine	Plasma	10 ng/mL				HPLC	*
Megestrol Acetate	Plasma	2 ng/mL				HPLC	*
Menadione	Human Plasma	1 ng/mL	1-500 ng/mL	500 µL	K2EDTA	LC/MS/MS	

Menaquinone-4	Human Plasma	1 ng/mL	1-500 ng/mL	200 µL	EDTA	LC/MS/MS	Yes
Mephenytoin	Plasma	1 ng/mL				LC/MS/MS	*
Metformin	Human Plasma	5 ng/mL	5-2000 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Metformin	Rat Plasma	50 ng/mL	50-50000 ng/mL	20 µL	K2EDTA	LC/MS/MS	Yes
Methylprednisolone	Plasma	2 ng/mL				LC/MS/MS	*
methotrexate/7-hydroxy methotrexate	Human Plasma	1/1 ng/mL	1/1-1000/1000 ng/mL	50 µL	EDTA	LC/MS/MS	Yes
Methylmalonic Acid	Human Serum	20 ng/mL	20-20000 ng/mL	50 µL		GC/MS	Yes
Metronidazole	Plasma	1 ng/mL				LC/MS/MS	*
Metoprolol	Plasma	0.5 ng/mL				LC/MS/MS	*
Midazolam/1-Hydroxy Midazolam	Human Plasma	0.1/0.1 ng/mL	0.1/0.1-100/100 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Morphine	Serum	10 ng/mL				LC/MS/MS	*
Moxifloxacin	Human Plasma	50 ng/mL	50-6000 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes

## N

Naproxen	Plasma	1 µg/mL				HPLC	*
Nevirapine	Human Plasma	50 ng/mL	50-10000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Nisoldipine	Plasma	5 ng/mL				LC/MS/MS	*
Nitrazepam	Human Plasma	0.2 ng/mL	0.2-100 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Nitrofurantoin	Urine	1 ng/mL				LC/MS/MS	*
Norketamine	Rat Plasma/Dog Plasma	100 ng/mL	100-50000 ng/mL	30 µL	K2EDTA	LC/MS/MS	Yes
Nornicotine	Dog Plasma	1 ng/mL	1-150 ng/mL	100 µL	K3EDTA	LC/MS/MS	Yes

## O

Octanoic Acid	Human Plasma	20 ng/mL	20-1000 ng/mL	400 µL	K2EDTA	LC/MS/MS	Yes
1-Octanol	Human Plasma	20 ng/mL	20-1000 ng/mL	100 µL	K2EDTA	LC/MS/MS	Yes
Omeprazole	Human Plasma	0.5 ng/mL and 1 ng/mL	0.5-50 ng/mL and 1-1000 ng/mL	50 µL	EDTA	LC/MS/MS	Yes
Oxybutynin/Desethyloxybutynin	Human Plasma	0.1/0.5 ng/mL	0.1/0.5-50/250 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Oxcarbazepine	Human Plasma/Human Serum	50 ng/mL	50-5000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Oxcarbazepine / Hydroxyoxcarbazepine	Human Plasma	10/100 ng/mL	10/100-2500/18000 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes

## P

Paraxanthine	Human Plasma	20 ng/mL	20-20000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Para-nitrophenol	Mouse Plasma	0.1 µg/mL and 1 ng/mL	0.1-100 µg/mL and 1-1000 ng/mL	20 µL	K2EDTA	LC/MS/MS	Yes
Pentobarbital	Human Plasma/Human Serum	50 ng/mL	50-5000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Phenobarbital	Human Plasma	50 ng/mL	50-5000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Phenytoin	Human Plasma	50 ng/mL and 250 ng/mL	50-5000 ng/mL and 250-10000 ng/mL	50 µL and 20 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Phenytoin	Supernatant of Human Plasma	1 ng/mL	1-500 ng/mL	40 µL	K2EDTA	LC/MS/MS	Yes
Phenytoin	Human Serum	50 ng/mL	50-5000 ng/mL	50 µL		LC/MS/MS	Yes
Pregabalin	Human Plasma/Human Serum	500 ng/mL	500-50000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Primidone	Human Plasma/Human Serum	10 ng/mL	10-10000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Propranolol / 4-hydroxypropranolol	Human Plasma	2/1 ng/mL	2/1-600/300 ng/mL	0.4 mL	K3EDTA	LC/MS/MS	Yes
Pseudoephedrine HCl	Plasma	10 ng/mL				HPLC	Yes

## Q

Quinapril / Quinaprilat	Plasma	1, 3 ng/mL				LC/MS/MS	*
Quinidine	Plasma	20 ng/mL				LC/MS/MS	*
Quinine	Human Plasma	25 ng/mL	25-10000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Quinine/3 Hydroxy Quinine	Supernatant of Human Plasma	2.5/2.5 ng/mL	2.5/2.5-1000/1000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Quinine/3 Hydroxy Quinine	Human Urine	0.25/0.25 µg/mL	0.25/0.25-50/50 µg/mL	100 µL		LC/MS/MS	Yes
Quinine/3-Hydroxy Quinine	Human Plasma	25/25 ng/mL	25/25-10000/10000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes

## R

Ramipril/Ramiprilat	Human Plasma	0.5/0.5 ng/mL	0.5/0.5-250/250 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Ranitidine	Plasma	5 ng/mL				LC/MS/MS	*
Rofecoxib	Human Plasma	10 ng/mL	10-1000 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Rosiglitazone	Human Plasma	2 ng/mL	2-800 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Rufinamide	Human Plasma	20 ng/mL	20-20000 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes

## S

Salicylic Acid	Human Plasma	0.1 ng/mL	0.1-100 ng/mL	20 µL	Sodium Heparin	LC/MS/MS	Yes
Salmon Calcitonin	Human Serum	9 pg/mL	0-400 pg/mL	200 µL		ELISA	Yes
Serotonin	Human Blood	10 ng/mL	10-5000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Sertraline	Human Plasma	0.5 ng/mL	0.5-200 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Simvastatin / hydroxy acid	Plasma	50 ng/mL				LC/MS/MS	*
Sotalol	Human Plasma	5 ng/mL	5-3000 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Sphingosine	Human Urine	1 ng/mL	1-1000 ng/mL	50 µL		LC/MS/MS	Yes
Sphingosine/Sphingosine-1-phosphate	Human Urine	1/1 ng/mL	1/1-1000/1000 ng/mL	50 µL		LC/MS/MS	Yes
Sumatriptan	Human Urine	100 ng/mL	100-20000 ng/mL	20 µL		LC/MS/MS	Yes

## T

Tempol Hydroxylamine	Human Plasma	5 ng/mL	5-1500 ng/mL	200 µL	EDTA	LC/MS/MS	Yes
Tempol Hydroxylamine	Dog Plasma	5 ng/mL and 1.5 µg/mL	5-1500 ng/mL and 1.5-450 µg/mL	100 µL and 20 µL	EDTA	LC/MS/MS	Yes
Terbinafine/N-Desmethylcarboxy Terbinafine	Human Urine	0.1/0.1 ng/mL	0.1/0.1-50/50 ng/mL	400 µL		LC/MS/MS	Yes
Testosterone	Human Plasma/Serum	0.1 ng/mL	0.1-50 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
<b>Testosterone (inc. metabolites)</b>	<b>Plasma/Serum</b>	<b>0.1 ng/mL</b>				<b>LC/MS/MS</b>	<b>*</b>
Tetracycline	Human/Sheep Plasma	5 ng/mL	5-500 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Thiodione	Human Plasma	1 ng/mL	1-500 ng/mL	100 µL	K2EDTA	LC/MS/MS	Yes
Tiagabine	Human Plasma/Human Serum	1 ng/mL	1-1000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Timolol	Human Plasma	5 ng/mL	5-2000 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Tizanidine	Human Plasma	0.1 ng/mL	0.1-100 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes
Tolbutamide	Human Plasma	2 ng/mL, 30 ng/mL, 50 ng/mL	2-2000 ng/mL, 30-30000 ng/mL, 50-50000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes
Tofisopam	Rabbit Plasma	0.5 ng/mL	0.5-1000 ng/mL	400 µL	K2EDTA	LC/MS/MS	Yes
Topiramate	Human Plasma/Human Serum	50 ng/mL	50-5000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
Tramadol	Human Plasma	0.5 ng/mL	0.5-300 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Triamterene	Human Plasma	2 ng/mL	2-500 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Triethyleneteramine (inc. metabolites)	Human Plasma	5 ng/mL	5-500 ng/mL	200 µL	Lithium heparin	LC/MS/MS	Yes
Trilostane	Rabbit Serum	100 pg/mL	100-100000 pg/mL	100 µL		LC/MS/MS	Yes
Triamterene	Human Plasma	2 ng/mL	2-500 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Trimethobenzamide	Human Plasma	5 ng/mL	5-2000 ng/mL	200 µL	K3EDTA	LC/MS/MS	Yes

#### U

Urea	Human Plasma/Dialysate	5 mM	5-50 mM	5 µL		ELISA	Yes
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#### V

<b>Valproate</b>	<b>Plasma</b>	<b>5 ng/mL</b>				<b>LC/MS/MS</b>	<b>*</b>
Valproic Acid	Human Plasma/Human Serum	1 µg/mL	1-200 µg/mL, 1000-50000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes
<b>Verapamil / Norverapamil</b>	<b>Plasma</b>	<b>5 ng/mL</b>				<b>HPLC</b>	<b>*</b>
Vigabatrin	Human Plasma/Human Serum	10 ng/mL	10-10000 ng/mL	50 µL	K2EDTA	LC/MS/MS	Yes

#### W,X,Y,Z

<b>Warfarin (RS)</b>	<b>Plasma</b>	<b>10 ng/mL</b>				<b>HPLC</b>	<b>*</b>
Ziduvodine	Human Plasma	3 ng/mL	3-3000 ng/mL	100 µL	EDTA	LC/MS/MS	Yes
Zolpidem	Human Plasma	1 ng/mL	1-300 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Zolpidem (inc. metabolites)	Human Plasma	1 ng/mL (0.2 ng/mL for metabolites)	1/1/0.2/0.2/0.2-300/300/600/600/600 ng/mL	200 µL	K2EDTA	LC/MS/MS	Yes
Zonisamide	Human Plasma/Human Serum	50 ng/mL	50-5000 ng/mL, 50-10000 ng/mL	50 µL	K2EDTA/K3EDTA	LC/MS/MS	Yes

\*Method development on-going

\*\*Dependent on method derived calculation

Frontage Laboratories has also developed and validated many proprietary bioanalytical methods for clients. Please inquire for any methods not listed, and we will prepare a customized quotation and project schedule that meets your needs.