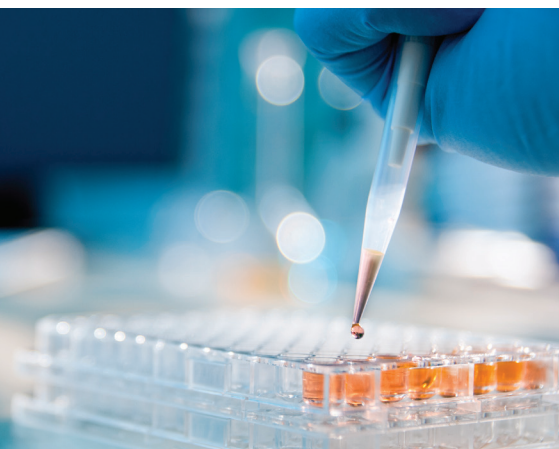


Global List of Validated Bioanalytical Assays



Assays Under Development

Compound Name	Technique	Species/Matrix
7a-hydroxy-4-cholesten-3-one	LC-MS/MS	Human Serum
Amylin endogenous	LC-MS/MS	Human Plasma
anti-Rituximab	EIA	Human Serum
anti-Ustekinumab	EIA	Human Serum
anti-Ustekinumab	EIA	Human Plasma
Insulin analogues	LC-MS/MS	Human Plasma
Insulin glargine; M1: M2	LC-MS/MS	Human Plasma
iPF2a-III	LC-MS/MS	Human Urine
Metformin	LC-MS/MS	Human Urine
Risperidone	LC-MS/MS	Human Plasma
Rituximab	EIA	Human Serum
Soluble Leptin Receptor	EIA	Human Plasma
TAM; 4-OHT, NDAM, ENDO	LC-MS/MS	Human Plasma
Total NAT and NAB	LC-MS/MS	Human Urine
Total NNN	LC-MS/MS	Human Plasma
Ustekinumab	EIA	Human Serum
Ustekinumab	EIA	Human Plasma

Validated Assay List

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
1-Hydroxypyrene (1-OHP)	LC-MS/MS	Human Urine	10-2000 pg/mL	N/A
21-desacetyl Deflazacort	LC-MS/MS	Human Plasma	1-200 ng/mL	EDTA
2,3 dinor Thromboxane-B2 (TXB2)	LC-MS/MS	Human Urine	25-2500 pg/mL	N/A
2-Pralidoxime (2-PAM)	LC-MS/MS	Human Plasma	0.1-20 ng/mL	Heparin
3-Hydroxybenzo[a]pyrene (3-OH BaP)	LC-MS/MS	Human Urine	25-600 fg/mL	N/A
3-Hydroxypropylmercapturic Acid (3-HPMA)	LC-MS/MS	Human Urine	35-5000 ng/mL	N/A
3-Hydromorphone	LC-MS/MS	Human Plasma	0.05000 – 10.00 ng/mL	EDTA
5-Fluorocytosine	LC-MS/MS	Human Plasma	0.5-100 ug/mL	EDTA
5-Fluorouracil	LC-MS/MS	Human Plasma	25-5000 ng/mL	EDTA
6-Beta Naltrexol	LC-MS/MS	Human Plasma	0.5-25 pg/mL	EDTA
6-Mercaptopurine (6-MP)	LC-MS/MS	Human Plasma	0.25-25 ng/mL	Heparin
6-O-desmethyl Donepezil	LC-MS/MS	Human Plasma	10-2000 pg/mL	EDTA
8-iso-Prostaglandin F2 (Type III)	LC-MS/MS	Human Urine	25-1500 pg/mL	N/A
8-iso-Prostaglandin F2 (Type IV)	LC-MS/MS	Human Urine	25-6000 pg/mL	N/A
11-Dehydro Thromboxane B2	LC-MS/MS	Human Urine	5-500 pg/mL	N/A
11-Dehydro Thromboxane B2	LC-MS/MS	Human Urine	25-2500 pg/mL	N/A
17-Deacetyl norgestimate; Levonorgestrel	LC-MS/MS	Human Plasma	20-2500 pg/mL; 80-3500 pg/mL	EDTA
Abacavir; Zidovudine	LC-MS/MS	Human Plasma	25-4000 ng/mL; 25-4000 ng/mL	Heparin
Abacavir; Zidovudine; Lamivudine	LC-MS/MS	Human Plasma	30-9000 ng/mL; 10-3000 ng/mL; 10-3000 ng/mL	EDTA
Acetaminophen	LC-MS/MS	Human Plasma	50-10000 ng/mL	EDTA, Heparin
Acetyl Salicylic Acid (ASA)	LC-MS/MS	Human Plasma	0.1-20 ug/mL	EDTA
Acetyl Salicylic Acid (ASA); Salicylic Acid (SA)	LC-MS/MS	Human Plasma	2-500 ng/mL; 50-12500 ng/mL	NaF/EDTA
Allopurinol; Oxypurinol	LC-MS/MS	Human Plasma	0.1-20 ug/mL	EDTA
Alprazolam; Alpha-Hydroxyalprazolam	LC-MS/MS	Human Plasma	0.10-15 ng/mL; 0.05-7.5 ng/mL	EDTA
Amiodarone; Desethylamiodarone	LC-MS/MS	Human Plasma	10-10000 ng/mL; 0.5-200 ng/mL	EDTA
Amlodipine	LC-MS/MS	Human Serum	50-10000 pg/mL	N/A
Amlodipine	LC-MS/MS	Human Plasma	50-10000 pg/mL	EDTA
Amlodipine	LC-MS/MS	Human Plasma	.05-10 ng/mL	Heparin
Amoxicillin	LC-MS/MS	Human Plasma	0.1-30 ug/mL	EDTA
Amphetamine D/L	LC-MS/MS	Human Plasma	0.5-50 ng/mL	EDTA
Amylin	EIA	Human Plasma	5.94 – 60.0 pM	EDTA
Anastrozole	LC-MS/MS	Human Plasma	0.1-60 ng/mL	EDTA, Heparin
anti-KLH IgG	ELISA	Human Serum	.95-30.5 ng/mL	N/A
anti-KLH IgM	ELISA	Human Serum	31.3 - 1000 ng/mL	N/A
anti-Pegfilgrastim ADA	EIA	Human Serum	N/A	N/A

Validated Assay List

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
Aprepitant	LC-MS/MS	Human Plasma	20-6000 ng/mL	EDTA
Aromatic Amines (1-AMN; 2-AMN; 3-ABP; 4-ABP)	LC-MS/MS	Human Urine	2-500 pg/mL; 2-500 pg/mL; .5-50 pg/mL; 1-100 pg/mL	N/A
Atenolol	LC-MS/MS	Human Plasma	5-1500 ng/mL	EDTA
Atomoxetine	LC-MS/MS	Human Plasma	5.2-1560 ng/mL	Heparin
Atorvastatin; Parahydroxy Atorvastatin; Orthohydroxy Atorvastatin	LC-MS/MS	Human Plasma	0.2-80 ng/mL; 0.1-40 ng/mL; 0.02-8 ng/mL	EDTA
Atropine	LC-MS/MS	Human Plasma	0.1-20 ng/mL	Heparin
Baclofen	LC-MS/MS	Human Plasma	2-500 ng/mL	EDTA
Baclofen	LC-MS/MS	Mouse Plasma	20-5000 ng/mL	Heparin
Bicalutamide	LC-MS/MS	Human Plasma	10-5000 ng/mL	EDTA
Budesonide	LC-MS/MS	Human Plasma	5-1500 pg/mL	N/A
Buprenorphine	LC-MS/MS	Human Plasma	5-1000 pg/mL	Heparin
Buprenorphine	LC-MS/MS	Human Plasma	25-5000 pg/mL	Heparin
Buprenorphine; Norbuprenorphine	LC-MS/MS	Human Plasma	10-2500 pg/mL; 10-2500 pg/mL	Heparin
Buprenorphine; Norbuprenorphine	LC-MS/MS	Human Plasma	5-1000 pg/mL; 10-2000 pg/mL	Heparin
Bupropion	LC-MS/MS	Human Plasma	1-200 ng/mL	EDTA
Bupropion; Hydroxybupropion	LC-MS/MS	Human Plasma	1-400 ng/mL; 4-1600 ng/mL	EDTA
C-Peptide	RIA	Human Serum	0.05-4 ng/mL	N/A
C-Peptide	EIA	Human Serum	0.15 ng/mL – 5.00 ng/mL	N/A
C-Peptide	RIA	Human Serum	100-4000 pg/mL	N/A
Caffeine	LC-MS/MS	Human Plasma	20-5000 ng/mL	Heparin
Caffeine; Paraxanthine	LC-MS/MS	Human Plasma	20-5000 ng/mL; 20-5000 ng/mL	Heparin
Candesartan	LC-MS/MS	Human Plasma	0.5-200 ng/mL	EDTA
Candesartan	LC-MS/MS	Human Plasma	2-200 ng/mL	EDTA
Capsaicin	LC-MS/MS	Human Plasma	5-500 pg/mL	Heparin
CD34+	Flow	Human Whole Blood	N/A	EDTA
Celecoxib	LC-MS/MS	Human Plasma	10-2500 ng/mL	EDTA
CEMA; 3-HPMA; HBMA	LC-MS/MS	Human Urine	20-5000 ng/mL; 20-5000 ng/mL; 0.2-150 ng/mL	N/A
CEMA; 2-HPMA, 3-HPMA; HBMA	LC-MS/MS	Human Urine	20-5000 ng/mL; 2.50 - 2000 ng/mL, 20-5000 ng/mL; 0.2-150 ng/mL	N/A
Cetirizine	LC-MS/MS	Human Plasma	10-750 ng/mL	EDTA
Cetirizine	LC-MS/MS	Human Plasma	2-400 ng/mL	EDTA
Chlorpheniramine	LC-MS/MS	Human Plasma	0.1-30 ng/mL	Heparin
Cholecalciferol	LC-MS/MS	Human Plasma	0.1-15 ng/mL	EDTA
CK18	ELISA	Human Serum	75-1000 U/L	N/A
Clarithromycin; 14-Hydroxy-Clarithromycin	LC-MS/MS	Human Plasma	1-4000 ng/mL; 0.5-2000 ng/mL	EDTA
Clavulanic Acid	LC-MS/MS	Human Plasma	50-5000 ng/mL	EDTA

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Compound Name	Technique	Species/Matrix	Range	Anti-coag.
Clonazepam	LC-MS/MS	Human Plasma	0.1-20 ng/mL	EDTA
Clopidogrel; Clopidogrel Acid	LC-MS/MS	Human Plasma	0.01-5 ng/mL; 10-5000 ng/mL	EDTA
Codeine	LC-MS/MS	Human Plasma	2-200 ng/mL; 0.1-30 ng/mL	Heparin
COHb (Carboxyhemoglobin)	Spectrophotometric	Human Whole Blood	1% - 5%	Sodium Heparin
Colchicine	LC-MS/MS	Human Plasma	0.03-10 ng/mL	EDTA
Cortisol; 6-β-Hydroxycortisol	LC-MS/MS	Human Urine	2-500 ng/mL; 30-7500 ng/mL	N/A
Cotinine	LC-MS/MS	Human Saliva	1-100 ng/mL	N/A
Creatinine	ELISA	Human Urine	30-600 ug/mL	N/A
Creatinine	LC-MS/MS	Human Urine	50-5000 ug/mL	N/A
CyanoEthylValine (CEV-Hg adducts)	LC-MS/MS	Human	750-97500 pM	EDTA
Cyclo (His-Pro) (CHP)	LC-MS/MS	Human Plasma	2.5-1000 ng/mL	EDTA
Cyclosporine A	LC-MS/MS	Human Whole Blood	5-1000 ng/mL	K ₂ EDTA
Cyproterone Acetate; 15-Beta-Hydroxycyproterone Acetate	LC-MS/MS	Human Plasma	0.1-40 ng/mL	Heparin
Dabigatran Free	LC-MS/MS	Human Plasma	.5-250 ng/mL	EDTA
Dabigatran Total	LC-MS/MS	Human Plasma	1-500 ng/mL	EDTA
Danazol	LC-MS/MS	Human Plasma	0.5-200 ng/mL	K ₃ EDTA
Danazol	LC-MS/MS	Human Serum	0.5-250 ng/mL	N/A
Dapagliflozin	LC-MS/MS	Human Plasma	.05-250 ng/mL	EDTA
Darifenacin	LC-MS/MS	Human Plasma	0.05-10 ng/mL	EDTA
Deferiprone	LC-MS/MS	Human Serum	0.1-20 ug/mL	N/A
Desipramine	LC-MS/MS	Human Plasma	0.5-200 ng/mL	Heparin
Desipramine; 2-Hydroxydesipramine	LC-MS/MS	Human Plasma	.5-200 ng/mL; .25-100 ng/mL	Heparin
Desmopressin	LC-MS/MS	Human Plasma	0.5/2-250 pg/mL	EDTA
Dexamethasone	LC-MS/MS	Human Plasma	0.1-50 ng/mL	EDTA
Dexlansoprazole	LC-MS/MS	Human Plasma	20-4000 ng/mL	EDTA
Dextromethorphan; Dextrorphan	LC-MS/MS	Rat Plasma	2-1000 ng/mL; 25-5000 ng/mL	EDTA, Heparin
Dextromethorphan; Dextrorphan	LC-MS/MS	Dog Plasma	2-1000 ng/mL; 25-5000 ng/mL	EDTA
Dextromethorphan; Dextrorphan	LC-MS/MS	Human Plasma	0.2-200 ng/mL; 2.5-2500 ng/mL	Heparin
Dextromethorphan; Dextrorphan	LC-MS/MS	Human Plasma	0.100 - 100 ng/mL, 0.200 - 200 ng/mL	Heparin
Dextromethorphan; Dextrorphan	LC-MS/MS	Mouse Plasma	2-1000 ng/mL; 25-5000 ng/mL	EDTA
DHPMA	LC-MS/MS	Human Urine	2-500 ng/mL	N/A
Diazepam; Nordiazepam	LC-MS/MS	Human Plasma	2-500 ng/mL	EDTA
Diclofenac	LC-MS/MS	Human Plasma	25-5000 pg/mL	K ₂ EDTA
Diclofenac	LC-MS/MS	Human Plasma	0.5-50 ng/mL	Heparin
Diclofenac	LC-MS/MS	Human Plasma	2.5-500 ng/mL	K ₂ EDTA
Digoxin	LC-MS/MS	Human Plasma	10-3500 pg/mL	K ₂ EDTA
Digoxin	LC-MS/MS	Human Urine	0.1-100 ng/mL	N/A
Diltiazem; Deacetyldiltiazem; N-Desmethyldiltiazem	LC-MS/MS	Human Plasma	2-100 ng/mL; 0.5-25 ng/mL	Heparin

Validated Assay List

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
Diphenhydramine	LC-MS/MS	Human Plasma	0.5-150 ng/mL	EDTA
Dipyridamole	LC-MS/MS	Human Plasma	10-3000 ng/mL	EDTA
Dolasetron; Hydrodolasetron	LC-MS/MS	Human Plasma	1-200 ng/mL	EDTA
Donepezil	LC-MS/MS	Human Plasma	0.3-45 ng/mL	Heparin
Donepezil	LC-MS/MS	Human Plasma	0.3-45 ng/mL	K ₂ EDTA
Doxylamine	LC-MS/MS	Human Plasma	0.2-100 ng/mL	K ₂ EDTA
Dronedarone	LC-MS/MS	Human Plasma	1-250 ng/mL	EDTA
Drospirenone	LC-MS/MS	Human Plasma	0.5-50 ng/mL	EDTA
Duloxetine	LC-MS/MS	Human Plasma	0.1-20 ng/mL	Heparin
Efavirenz	LC-MS/MS	Human Plasma	10-5000 ng/mL	EDTA
Emtricitabine	LC-MS/MS	Human Plasma	10-2500 ng/mL	Heparin
Enalapril; Enalaprilat	LC-MS/MS	Human Plasma	0.5-100 ng/mL; 0.25-50 ng/mL	EDTA
Eprosartan	LC-MS/MS	Human Plasma	20-4000 ng/mL	EDTA
Eptifibatide	LC-MS/MS	Human Plasma	20-4000 ng/mL	EDTA
Escitalopram	LC-MS/MS	Human Plasma	0.2-40 ng/mL	K ₂ EDTA
Exemestane	LC-MS/MS	Human Plasma	0.1-50 ng/mL	K ₃ EDTA
Ezetimibe-Free	LC-MS/MS	Human Plasma	0.05-10 ng/mL	EDTA
Ezetimibe-Total	LC-MS/MS	Human Plasma	0.5-100 ng/mL	EDTA
Famotidine	LC-MS/MS	Human Plasma	1-200 ng/mL	EDTA
Febuxostat	LC-MS/MS	Human Plasma	15-3000 ng/mL	Sodium Heparin
Felodipine	LC-MS/MS	Human Plasma	10-2000 pg/mL	EDTA
Fenofibrate; Fenofibric Acid; Reduced Fenofibric Acid	LC-MS/MS	Human Plasma	0.05-10 ng/mL; 10-2000 ng/mL; 0.5-100 ng/mL	EDTA
Fentanyl	LC-MS/MS	Human Serum	10-5000 pg/mL	N/A
Fentanyl	LC-MS/MS	Rabbit Serum	100-5000 pg/mL	N/A
Fentanyl	LC-MS/MS	Rat Plasma	20-7500 pg/mL	EDTA
Fexofenadine	LC-MS/MS	Human Plasma	2-400 ng/mL	Heparin
FGF-21	EIA	Human Serum	60-3000 pg/mL	N/A
Fimasartan	LC-MS/MS	Human Plasma	2-500 ng/mL	K ₂ EDTA
Fluoxetine; Duloxetine; Paroxetine; Sertraline	LC-MS/MS	Human Plasma	1-500 ng/mL; 0.1-50 ng/mL; 0.2-100 ng/mL; 0.5-250 ng/mL	K ₂ EDTA
Fluticasone	LC-MS/MS	Human Plasma	1-150 pg/mL	K ₂ EDTA
Fluvastatin	LC-MS/MS	Human Plasma	1-400 ng/mL	K ₂ EDTA
Fluvoxamine	LC-MS/MS	Human Plasma	0.200-100ng/mL	EDTA
Fremanezumab	ELISA	Human Plasma	50-2000 ng/mL	K ₂ EDTA
Furosemide	LC-MS/MS	Human Plasma	0.1-20 ug/mL	EDTA
Furosemide	LC-MS/MS	Human Urine	0.1-20 ug/mL	N/A
Gabapentin	LC-MS/MS	Human Plasma	40-10000 ng/mL	K ₂ EDTA
Galanthamine	LC-MS/MS	Human Plasma	0.3-120 ng/mL	EDTA
Gemcitabine; dFdU	LC-MS/MS	Human Plasma	100-20000ng/mL; 247-49300 ng/mL	Heparin

Validated Assay List

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
Gestodene	LC-MS/MS	Human Plasma	50-10000 pg/mL	EDTA
Ghrelin (total)	EIA	Human Plasma	350-4000 pg/mL	K ₂ EDTA
Ghrelin & Desacyl-Ghrelin	LC-MS/MS	Human Plasma	50-2500 pg/mL	EDTA
Glimepiride	LC-MS/MS	Human Plasma	2-400 ng/mL	EDTA
Glimepiride; Trans hydroxy Glimepiride	LC-MS/MS	Human Plasma	1-200 ng/mL; 0.2-40 ng/mL	EDTA
Glucagon	LC-MS/MS	Human Plasma	100-10000 pg/mL	EDTA
Glucagon	LC-MS/MS	Rat Plasma	1-150 ng/mL	EDTA
Glucagon	LC-MS/MS	Human Plasma	2-200 ng/mL	P800 EDTA
Glucose	Enzyme Assay	Human Plasma	60-1800 ug/mL	K ₃ EDTA
Glyburide	LC-MS/MS	Human Plasma	2-400 ng/mL	EDTA
Glyburide; cis-3-Hydroxy Glyburide; trans-4-Hydroxy Glyburide	LC-MS/MS	Human Plasma	0.5-200 ng/mL; 0.1-50 ng/mL	Heparin
Glyburide; cis-3-Hydroxy Glyburide; trans-4-Hydroxy Glyburide	LC-MS/MS	Human Urine	5-2500 ng/mL; 20-10000 ng/mL	N/A
HEMA	LC-MS/MS	Human Urine	0.1-20 ng/mL	N/A
Hemoglobin	ELISA	Human Red Blood Cells	2-16 mg/mL	EDTA
Hydrochlorothiazide	LC-MS/MS	Human Plasma	0.5-150 ng/mL	EDTA
Hydrocodone	LC-MS/MS	Human Plasma	0.1-40 ng/mL	Heparin
Ibandronate	LC-MS/MS	Human Serum	0.2-100 ng/mL	N/A
Ibuprofen	LC-MS/MS	Human Plasma	0.25-50 ug/mL	EDTA
IGF-1	ELISA	Human Serum	.09-6 ng/mL	N/A
Indomethacin	LC-MS/MS	Human Plasma	5-2500 ng/mL	K ₂ EDTA
Insulin	EIA	Human Serum	10 pM-400 pM	N/A
Insulin	EIA	Human Serum	20-600 pM	N/A
Irbesartan	LC-MS/MS	Human Plasma	30-6000 ng/mL	EDTA
Isradipine	LC-MS/MS	Human Plasma	50-10000 pg/mL	EDTA
Itraconazole; 7-OH-Itraconazole	LC-MS/MS	Human Plasma	1-500 ng/mL; 2-1000 ng/mL	K ₂ EDTA
Ketoconazole	LC-MS/MS	Human Plasma	20-4000 ng/mL	EDTA
Ketoprofen	LC-MS/MS	Human Plasma	0.25-50 ng/mL	EDTA, Heparin
KIM-1	EIA	Human		
Lansoprazole	LC-MS/MS	Human Plasma	2-1200 ng/mL	Heparin
Lenalidomide	LC-MS/MS	Human Plasma	5-1000 ng/mL	K ₂ EDTA
Leptin	EIA	Human Plasma	10-3200 pg/mL	EDTA
Letrozole	LC-MS/MS	Human Plasma	0.5-100 ng/mL	EDTA

Validated Assay List

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
Levonorgestrel; Ethinyl Estradiol	LC-MS/MS	Human Plasma	50-10000 pg/mL; 5-1000 pg/mL	EDTA
Lisinopril	LC-MS/MS	Human Plasma	.5-100 ng/mL	K ₂ EDTA
Losartan; Losartan Acid Metabolite	LC-MS/MS	Human Plasma	1-300 ng/mL	Sodium EDTA
Lovastatin; Lovastatin Hydroxy-Acid	LC-MS/MS	Human Plasma	0.1-20 ng/mL; 0.1-10 ng/mL	EDTA
Lovastatin; Lovastatin Hydroxy-Acid	LC-MS/MS	Human Plasma	0.1-20 ng/mL	Heparin
Malondialdehyde	EIA	Human Plasma	20-500 ng/mL	K ₂ EDTA
MCP-1	EIA	Human Serum	40-1500 pg/mL	N/A
Mecamylamine	LC-MS/MS	Human Plasma	1-100 ng/mL	EDTA
Mesalamine	LC-MS/MS	Human Plasma	3-1000 ng/mL	K ₂ EDTA
Metaxalone	LC-MS/MS	Human Plasma	25-5000 ng/mL	EDTA
Metformin	LC-MS/MS	Human Plasma	30-6000 ng/mL	EDTA
R-Methadone; S-Methadone	LC-MS/MS	Human Plasma	20-4000 ng/mL	K ₂ EDTA
Methotrexate	LC-MS/MS	Human Plasma	2-400 ng/mL	K ₂ EDTA
Methylphenidate	LC-MS/MS	Dog Plasma	0.25-10 ng/mL	Heparin
Methylphenidate	LC-MS/MS	Human Plasma	0.1-20 ng/mL	EDTA
Methylphenidate-d; Methylphenidate-L	LC-MS/MS	Human Plasma	0.5-50 ng/mL; 0.05-5 ng/mL	EDTA
Methylphenidate-d; Ritalinic Acid-d; Methylphenidate-L; Ritalinic Acid-L	LC-MS/MS	Rat Plasma	0.5-50 ng/mL; 5-500 ng/mL	Potassium Oxalate/ Sodium Fluoride
Methylphenidate-d; Ritalinic Acid-d; Methylphenidate-L; Ritalinic Acid-L	LC-MS/MS	Mouse Plasma	1-50 ng/mL; 5-500 ng/mL	Potassium Oxalate/Sodium Fluoride
Methylprednisolone	LC-MS/MS	Dog Plasma	0.5-50 ng/mL	EDTA
Methyl Salicylate	LC-MS/MS	Human Plasma	1.75-50 ng/mL	Potassium Oxalate/Sodium Fluoride
Metoclopramide	LC-MS/MS	Human Plasma	1-150 ng/mL	Heparin
Metopropol	LC-MS/MS	Human Plasma	1-500 ng/mL	K ₃ EDTA
Metopropol	LC-MS/MS	Human Plasma	1-400 ng/mL	K ₂ EDTA
Midazolam; Hydroxymidazolam	LC-MS/MS	Human Plasma	0.1-40 ng/mL; 0.1-20 ng/mL	Heparin
Midazolam; Hydroxymidazolam	LC-MS/MS	Human Plasma	.1-50 ng/mL	Heparin
Misoprostol Acid	LC-MS/MS	Human Plasma	5-500 pg/mL	K ₂ EDTA
Mometasone Furoate	LC-MS/MS	Human Plasma	0.25-25 pg/mL	EDTA
Monohydroxy-3-Butenyl Mercapturic Acid (MHBMA)	LC-MS/MS	Human Urine	0.1-20 ng/mL	N/A
Montelukast	LC-MS/MS	Human Plasma	3-800 ng/mL	Heparin
Morphine; Morphine-3-Glucuronide; Morphine-6-Glucuronide	LC-MS/MS	Human Serum	0.5-50 ng/mL; 10-1000 ng/mL; 1-100 ng/mL	N/A

Validated Assay List

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
Morphine; Morphine-3-Glucuronide; Morphine-6-Glucuronide	LC-MS/MS	Human Plasma	0.25-50 ng/mL; 10-1000 ng/mL	EDTA
Morphine; Morphine-6-Glucuronide	LC-MS/MS	Human Plasma	0.25-50 ng/mL; 1-200 ng/mL	K ₃ EDTA
Moxifloxacin	LC-MS/MS	Human Plasma	0.5-50 ng/mL	Heparin
NAB-Total; NAT-Total	LC-MS/MS	Human Urine	2-200 pg/mL; 5-1000 pg/mL	N/A
Naftifine	LC-MS/MS	Human Plasma	1-200 ng/mL	K ₃ EDTA
NAG	EIA	Human	N/A	N/A
Nalbuphine	LC-MS/MS	Human Plasma	0.5- 50 ng/mL	EDTA
Naloxone	LC-MS/MS	Mouse Plasma	0.5-100 ng/mL	Heparin
Naloxone-Free	LC-MS/MS	Human Plasma	0.2-40 ng/mL	Heparin
Naloxone-Total	LC-MS/MS	Human Plasma	10-2000 pg/mL	EDTA
Naloxone-3-Glucuronide	LC-MS/MS	Human Plasma	75-15000 pg/mL	Heparin
Naltrexone	LC-MS/MS	Dog Plasma	0.1-50 ng/mL	EDTA
Naltrexone	LC-MS/MS	Human Serum	0.1-50 ng/mL	N/A
Naltrexone; 6-Beta-Naltrexol	LC-MS/MS	Human Plasma	4-500 pg/mL; 4-1600 pg/mL	EDTA
Naltrexone; 6-Beta-Naltrexol	LC-MS/MS	Human Serum	10-2000 pg/mL	N/A
Niacin; Nicotinamide; Nicotinuric Acid	LC-MS/MS	Human Plasma	25-5000 ng/mL; 10-2000 ng/mL; 5-1000 ng/mL	EDTA
Nicotine; Cotinine	LC-MS/MS	Human Serum	0.5-50 ng/mL; 1-200 ng/mL	N/A
Nicotine; Cotinine	LC-MS/MS	Human Plasma	0.2-10 ng/mL; 1-100 ng/mL	EDTA
Nicotine; Cotinine	LC-MS/MS	Human Plasma	1-50 ng/mL; 1-100 ng/mL	EDTA
Nicotine; Cotinine; trans-3'-Hydroxycotinine	LC-MS/MS	Human Plasma	0.2-10 ng/mL; 1-100 ng/mL	EDTA, Heparin
Nicotine; Cotinine; trans-3'-Hydroxycotinine	LC-MS/MS	Human Plasma	1-50 ng/mL; 5-500 ng/mL; 5-500 ng/mL	EDTA
Nicotine; Cotinine; trans-3'-Hydroxycotinine; Nicotine Glucuronide; Cotinine Glucuronide; trans-3'-Hydroxycotinine Glucuronide	LC-MS/MS	Human Urine	10-1000 ng/mL; 10-1000 ng/mL; 10-1000 ng/mL; 10-1000 ng/mL; 20-2000 ng/mL; 50-5000 ng/mL	N/A
Nicotine; Cotinine; trans-3'-Hydroxycotinine; Nicotine Glucuronide; Cotinine Glucuronide; trans-3'-Hydroxycotinine Glucuronide	LC-MS/MS	Human Urine	50-5000 ng/mL; 50-5000 ng/mL; 50-5000 ng/mL; 50-5000 ng/mL; 200-20000 ng/mL; 200-20000 ng/mL	N/A
NNAL-Total	LC-MS/MS	Human Urine	5-2000 pg/mL	N/A
NNN; NNAL	LC-MS/MS	Human Urine	0.2-40 pg/mL; 5-2000 pg/mL	N/A
Nordiazepam	LC-MS/MS	Human Plasma	10-500 ng/mL	EDTA
Norethindrone; Ethinyl Estradiol	LC-MS/MS	Human Plasma	50-10000 pg/mL; 5-1000 pg/mL	K ₂ EDTA

Validated Assay List

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
Norgestimate; Deacetyl norgestimate	LC-MS/MS	Human Plasma	20-2500 pg/mL	EDTA
Norgestrel (Reported as Levonorgestrel)	LC-MS/MS	Human Plasma	0.05-10 ng/mL	EDTA, Heparin
Octreotide	LC-MS/MS	Human Plasma	20-6000 pg/mL	K ₂ EDTA
Olmesartan	LC-MS/MS	Human Plasma	2.5-500 ng/mL	EDTA
Olmesartan	LC-MS/MS	Human Plasma	2.5-1500 ng/mL	K ₃ EDTA
Omeprazole	LC-MS/MS	Human Plasma	10-2000 ng/mL	Sodium Heparin
Omeprazole	LC-MS/MS	Human Plasma	2-700 ng/mL	EDTA
Omeprazole; 5-OH Omeprazole	LC-MS/MS	Human Plasma	4-2000 ng/mL; 1-500 ng/mL	K ₂ EDTA
R-Omeprazole; S-Omeprazole	LC-MS/MS	Human Plasma	0.5-100 ng/mL	EDTA
Ondansetron	LC-MS/MS	Human Plasma	0.5-100 ng/mL	EDTA
Orlistat	LC-MS/MS	Human Plasma	37.5-75000 pg/mL	EDTA
Oxybutynin [R]; Oxybutynin [S]; Desethyloxybutynin [R]; Desethyloxybutynin [S]	LC-MS/MS	Rat Plasma	1-250 ng/mL; 2.5-500 ng/mL	K ₂ EDTA
Oxybutynin [R]; Oxybutynin [S]; Desethyloxybutynin [R]; Desethyloxybutynin [S]	LC-MS/MS	Human Plasma	0.05-10 ng/mL	EDTA
Oxybutynin; Desethyloxybutynin	LC-MS/MS	Human Plasma	0.05-50 ng/mL	EDTA, Heparin
Oxybutynin; Desethyloxybutynin	LC-MS/MS	Human Plasma	0.05-10 ng/mL	K ₂ EDTA
Oxycodone	LC-MS/MS	Human Plasma	0.2-50 ng/mL	EDTA, Heparin
Oxycodone; Noroxycodone	LC-MS/MS	Human Plasma	0.5-100 ng/mL; 0.02 - 5.00 ng/mL	Sodium EDTA
Oxycodone; Noroxycodone; Oxymorphone	LC-MS/MS	Human Plasma	.5-125 ng/mL; .2-50 ng/mL; .02-5 ng/mL	K ₂ EDTA
Paclitaxel	LC-MS/MS	Human Plasma	10-4000 ng/mL	K ₂ EDTA
Paliperidone	LC-MS/MS	Human Plasma	0.1-20 ng/mL	K ₂ EDTA
Pantoprazole	LC-MS/MS	Human Plasma	20-6000 ng/mL	Heparin
Paroxetine	LC-MS/MS	Human Plasma	0.1-20 ng/mL	Heparin
Paroxetine	LC-MS/MS	Human Plasma	0.1- 50 ng/mL	EDTA
PEG-IFN alpha 2a (Pegasys)	EIA	Human Serum	250-6000 pg/mL	N/A
Phentermine	LC-MS/MS	Human Plasma	0.25-50 ng/mL	EDTA
Phenytoin	LC-MS/MS	Human Plasma	20-5000 ng/mL	K ₃ EDTA
Pitavastatin	LC-MS/MS	Human Plasma	0.5-150 ng/mL	K ₂ EDTA
Pitavastatin; Pitavastatin Lactone	LC-MS/MS	Human Plasma	.5-150 ng/mL	EDTA
Pomalidomide	LC-MS/MS	Human Plasma	1-100 ng/mL	K ₂ EDTA
Pramipexole	LC-MS/MS	Human Plasma	10-2000 pg/mL	K ₂ EDTA
Pramipexole	LC-MS/MS	Human Plasma	30-7500 pg/mL	K ₂ EDTA
Pravastatin; 3-Alpha-Hydroxy Pravastatin; Pravastatin Lactone	LC-MS/MS	Human Plasma	0.2-100 ng/mL	Heparin
Pravastatin; Pravastatin Lactone	LC-MS/MS	Human Plasma	.2-100 ng/mL	K ₂ EDTA
Pravastatin; 3-Alpha Hydroxy pravastatin; Pravastatin Lactone	LC-MS/MS	Human Urine	0.2-100 ng/mL	N/A
Prednisone; Prednisolone	LC-MS/MS	Human Plasma	0.4-100 ng/mL; 4-1000 ng/mL	EDTA

Validated Assay List

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
Progesterone	LC-MS/MS	Human Plasma	0.05-15 ng/mL	EDTA
Progesterone	LC-MS/MS	Human Serum	0.05-15 ng/mL	N/A
Promethazine	LC-MS/MS	Human Plasma	0.1-20 ng/mL	Heparin
Propylene Glycol	LC-MS/MS	Human Urine	250-25000 ng/mL	N/A
Prostaglandin E2 (PGE-2)	EIA	Human Urine	30-1500 pg/mL (STD curve 10-500 pg/mL, samples @ DF=3)	N/A
Protein/Peptide Release Testing by HRMS	LC-MS/MS	Human		N/A
Pseudoephedrine	LC-MS/MS	Human Plasma	1-200 ng/mL	EDTA
PTH 1-34	ELISA	Human Plasma	6-150 pg/mL	EDTA
Quetiapine	LC-MS/MS	Human Plasma	1-200 ng/mL	EDTA
Quetiapine	LC-MS/MS	Human Plasma	5-1000 ng/mL	EDTA
Quinidine	HPLC/FL	Human Plasma	0.05-10 ug/mL	Heparin
Quinidine	HPLC/FL	Human Plasma	2-250 ng/mL	Heparin
Rabeprazole	LC-MS/MS	Human Plasma	5-400 ng/mL	Heparin
Raloxifene	LC-MS/MS	Human Plasma	5-1000 pg/mL	Heparin
Ramipril; Ramiprilat	LC-MS/MS	Human Plasma	0.1-20 ng/mL	EDTA
Repaglinide	LC-MS/MS	Human Plasma	0.3-75 ng/mL	EDTA
Ribavirin	LC-MS/MS	Human Serum	5-2000 ng/mL	N/A
Ribavirin	LC-MS/MS	Human Red Blood Cells	0.1-10 ug/mL	EDTA
Ribavirin	LC-MS/MS	Human Plasma	10-2000 ng/mL	EDTA
Rifampin	LC-MS/MS	Human Plasma	0.1-20 ug/mL	K ₂ EDTA
Ritalinic Acid-d; Ritalinic Acid-L	LC-MS/MS	Human Plasma	5-500 ng/mL	EDTA
Ritonavir	LC-MS/MS	Human Plasma	5-1000 ng/mL	Sodium EDTA
Ropinirole	LC-MS/MS	Human Plasma	0.05-7.5 ng/mL	EDTA
Rosiglitazone	LC-MS/MS	Human Plasma	2.5-500 ng/mL	EDTA
Rosiglitazone; Desmethylrosiglitazone	LC-MS/MS	Human Plasma	1-400 ng/mL	EDTA
Rosuvastatin	LC-MS/MS	Human Plasma	0.2-100 ng/mL	EDTA
Rotigotine	LC-MS/MS	Human Plasma	0.01-2 ng/mL	EDTA
SARS-COV-2	RT-PCR	Nasal Epithelial Cells	N/A	N/A
SARS-COV-2	RT-PCR	Nasopharyngeal Cells	N/A	N/A
Scopolamine	LC-MS/MS	Human Plasma	5-500 pg/mL	EDTA
sICAM	ELISA	Human Plasma	30-400 ng/mL	Heparin
Sildenafil; Desmethylsildenafil	LC-MS/MS	Human Plasma	1-400 ng/mL	EDTA
Simvastatin; Simvastatin Hydroxy Acid	LC-MS/MS	Human Plasma	0.1-20 ng/mL	EDTA
Sitagliptin	LC-MS/MS	Human Plasma	2.5-500 ng/mL	EDTA
Solifenacin	LC-MS/MS	Human Plasma	0.1-20 ng/mL	EDTA
Soluble Leptin Receptor	ELISA	Human Plasma	8-80 ng/mL	EDTA
Soluble Leptin Receptor	EIA	Human Plasma		

Validated Assay List

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
S-PMA; SBMA	LC-MS/MS	Human Urine	25-6250 pg/mL, 100-25000 pg/mL	N/A
Sumatriptan	LC-MS/MS	Human Plasma	0.1-15 ng/mL	K ₂ EDTA
Sumatriptan	LC-MS/MS	Human Plasma	0.5-100 ng/mL	K ₂ EDTA
Tacrolimus	LC-MS/MS	Human Whole Blood	0.5-50 ng/mL	K ₂ EDTA
Tadalafil	LC-MS/MS	Human Plasma	1-400 ng/mL	EDTA
TBNK	Flow	Human Whole Blood	N/A	EDTA
TBX2	EIA	Human Plasma/ Serum	N/A	N/A
Telaprevir	LC-MS/MS	Human Plasma	0.1-20 ug/mL	K ₂ EDTA
Telmisartan	LC-MS/MS	Human Plasma	0.5-100 ng/mL	EDTA
Testosterone; Dihydrotestosterone (DHT)	LC-MS/MS	Human Serum	50-10000 pg/mL; 10-2000 pg/mL	N/A
Testosterone; Methyltestosterone	LC-MS/MS	Human Plasma	0.05-10 ng/mL	N/A
Thalidomide	LC-MS/MS	Human Plasma	20-2000 ng/mL	Heparin
Theophylline	LC-MS/MS	Human Plasma	100-20000 ng/mL	EDTA
Tiagabine	LC-MS/MS	Human Plasma	0.5-200 ng/mL	EDTA
TNF alpha	EIA	Human Plasma	1-32 pg/mL	Lithium Heparin
Tolterodine; 5-Hydroxymethyl Tolterodine	LC-MS/MS	Human Plasma	15-5000 pg/mL; 15-5000 pg/mL	EDTA
o-Toluidine	LC-MS/MS	Human Urine	20-1000 pg/mL	N/A
Topiramate	LC-MS/MS	Human Plasma	10-1000 ng/mL	EDTA
Total Antioxidant Capacity (TAC)	ELISA	Human Serum	100-300 uM	N/A
Triamcinolone Acetonide	LC-MS/MS	Human Plasma	50-4000 pg/mL	EDTA
Valsartan	LC-MS/MS	Human Plasma	15-7000 ng/mL	EDTA
Valsartan	LC-MS/MS	Human Serum	15-7000 ng/mL	N/A
Verapamil; Norverapamil	LC-MS/MS	Human Plasma	2.5-250 ng/mL	Heparin
Verapamil; Norverapamil	LC-MS/MS	Human Plasma	1.3-250 ng/mL	Heparin
Voriconazole	LC-MS/MS	Human Plasma	5-2000 ng/mL	EDTA
R-Warfarin; S-Warfarin	LC-MS/MS	Human Plasma	12.5-2500 ng/mL	EDTA
R-Warfarin; S-Warfarin	LC-MS/MS	Human Plasma	12.5-2500 ng/mL	Sodium Heparin
R-Warfarin; S-Warfarin	LC-MS/MS	Human Plasma	1-200 ng/mL	EDTA
Zidovudine; Abacavir	LC-MS/MS	Human Plasma	10-3000 ng/mL; 10-3000 ng/mL	EDTA
Zileuton; A66193	LC-MS/MS	Human Plasma	0.05-10 ug/mL	EDTA
Zolpidem	LC-MS/MS	Human Plasma	1-250 ng/mL	EDTA
Zonisamide	LC-MS/MS	Human Serum	30-3000 ng/mL	N/A

BioMarker Assays

Compound Name	Technique	Species/Matrix	Range	Anti-coag.
Active Ghrelin	ELISA	Human Plasma	50-2000 pg/mL	K ₂ EDTA
Active GLP-1	ELISA	Human Plasma	2-100 pM	K ₂ EDTA
C-Peptide	RIA	Human Serum	0.05-4 ng/mL	N/A
IGF-1	ELISA	Human Plasma	0.09-6 ng/mL	K ₂ EDTA
IGFBP-3	ELISA	Human Plasma	0.7-40 ng/mL	K ₂ EDTA
IL-6	ELISA	Human Serum	3.12-300 pg/mL	N/A
PGE-2	ELISA	Human Urine	10-500 pg/mL	N/A
PTH 1-34	ELISA	Human Plasma	6-150 pg/mL	K ₃ EDTA
PTH 1-84	RIA	Human Plasma	10-2000 pg/mL	K ₃ EDTA
Total Adiponectin	ELISA	Human Serum	3.93-250 ng/mL	N/A

Biosimilar - Qualified Assays

PK Assays - Measurement of Drug in Biological matrices	Species/Matrix	Range	Anti-coag.
Cetuximab	Human Serum	0.3-50 ug/mL	N/A
Rituximab	Human Serum	1-50 ug/mL	N/A
Peg-Filgrastim (Neulasta)	Human Serum	0.2-10 ng/mL	N/A
Exendin-4	Human Plasma	20-400 pg/mL	Heparin
Etanercept (Enbrel)	Human Serum	20-1000 ng/mL	N/A
Adalimumab (Humira)	Human Serum	80-8000 ng/mL	N/A

Biosimilar - Qualified Assays

ADA assays - Measurement of Anti-drug antibody assays	Species/Matrix	Sensitivity	Anti-coag.
Cetuximab ADA assay	Human Serum	10 ng/mL	N/A
Rituximab ADA assay	Human Serum	10 ng/mL	N/A
PTH (1-34) ADA assay	Human Serum	206 ng/mL	N/A

For further information on our validated assays, please contact marketing@celerion.com.

Celerion Solution

Over 15 years of experience

conducting smoking, tobacco or nicotine-related research. Celerion scientists have designed, conducted, consulted on, or analyzed data for more than 60 tobacco product-related studies

Global presence with purpose-built facilities

custom designed to the needs of tobacco-related research including infrastructure for confined smoking periods, technology for smoking data collection and proven procedures for managing the potential hazards of cross contamination, common to nicotine sample management. Celerion has three clinical facilities with over 600 beds, two bioanalytical laboratories, in addition to a global network of audited partner sites in North America, Europe, South Korea and Singapore

Extensive experience

designing studies to capture events and endpoints commonly evaluated in tobacco studies, performing statistical analysis, interpreting data and providing written reports describing the results. This full-service approach delivers quality data, while saving clients' time and cost

Highly qualified scientists

stay abreast of industry trends and regulatory guidelines in addition to attending key scientific conferences. This enables Celerion to deliver on clients' scientific objectives, and ensure the data meets regulatory requirements

Bioanalytical services

at world leading laboratories offering extensive expertise in the assessment of tobacco exposure markers, having analyzed over 200,000 samples in the past three years

Regulatory experience

assists clients to navigate the evolving regulatory pathway toward product approval. Celerion has experience working with the FDA, EMA and MHRA, as well as other regulatory authorities

