UNIVERSITY OF LIVERPOOL

Centre for Experimental Therapeutics
Bioanalytical Facility

LC-MS Assay List

Analyte(s)	Matrix	Calibration ranges
cabotegravir	EDTA plasma	10-10,000 ng/mL
lenacapavir	EDTA plasma	1-1000 ng/mL
baclofen (R and S enantiomers)	EDTA plasma	10-10,000 ng/mL
remdesivir	NaF/K-Ox Plasma	10-10,000 ng/mL
remdesivir triphosphate	Plasma separation cards (HemaSep)	15-6000 pmol/sample
remdesivir triphosphate	PBMC lysate (70% methanol)	15-6000 pmol/sample
levonorgestrel	EDTA plasma	50-1500 pg/mL
(depo) medroxyprogesterone acetate	EDTA plasma	100-10,000 pg/mL
tizoxanide, tizoxanide -glucuronide	EDTA plasma	7-40,000 ng/mL
tizoxanide, tizoxanide-glucuronide	Saliva	10-10,000 ng/mL
tizoxanide, tizoxanide -glucuronide	Nasal swabs, tear test strips	0.015-15 ng/sample
tizoxanide	Plasma separation cards (HemaSep)	2.5-2250 ng/sample
molnupiravir, N4-hydroxycytidine	EDTA plasma/acetonitrile extract	2.5-5000 ng/mL
molnupiravir, N4-hydroxycytidine	Nasal swabs, tear test strips	0.15-75 ng/sample
N4-hydroxycytidine	Plasma separation cards (HemaSep)	2.5-250 ng/sample
nirmatrelvir	Nasal swabs	0.04-75 ng/sample
nirmatrelvir	Tear test strips	0.04-75 ng/sample
nirmatrelvir, ritonavir	EDTA plasma	5-5000 ng/mL
nirmatrelvir, ritonavir	Saliva	1.25-3800 ng/mL

UNIVERSITY OF LIVERPOOL

Analyte(s)	Matrix	Calibration ranges
favipiravir	EDTA plasma	1-1000 µg/mL
favipiravir	Nasal swabs, tear test strips	0.5-75 ng/sample
favipiravir	Saliva	1.5-5000 ng/mL
favipiravir	Plasma separation cards (HemaSep)	50-5000 ng/sample
favipiravir triphosphate	PBMC lysate (70% methanol)	24-2280 pmol/sample
favipiravir triphosphate	Plasma separation cards (HemaSep)	24-2280 pmol/sample
favipiravir hydroxide (M1 metabolite)	EDTA plasma	500-50,000 ng/mL
bictegravir	EDTA plasma	10-10,000 ng/mL
sofosbuvir, GS-331007, ledipasvir, daclatasvir, simeprevir	EDTA plasma	2.5-5000 ng/mL
tecovirimat	EDTA plasma	5-4000 ng/mL
cenicriviroc	EDTA plasma	5-1000 ng/mL
dolutegravir	Dried Breast Milk Spot (Whatman DBMS)	10-4000 ng/mL
dolutegravir	Plasma separation cards (HemaSep)	0.5-500 ng/sample
dolutegravir, elvitegravir, cobicistat	EDTA plasma	10-10,000 ng/mL
dolutegravir, elvitegravir, cobicistat	Urine	10-4000 ng/mL
doravirine	EDTA plasma	2-2000 ng/mL
doravirine	Dried Breast Milk Spot (Whatman DBMS)	0.4-40 ng/mL
efavirenz	EDTA plasma	10-10,000 ng/mL
efavirenz	Whole blood | Dried Blood Spot (DBS)	25-5000 ng/mL
efavirenz	Dried Breast Milk Spot (Whatman DBMS)	25-5000 ng/mL
efavirenz	Vaginal swabs	3-1280 ng/sample
efavirenz, 7-hydroxy efavirenz, 8-hydroxy efavirenz	EDTA plasma	10-10,000 ng/mL
efavirenz, 7-hydroxy efavirenz, 8-hydroxy efavirenz	Cerebrospinal fluid	3.1-100 ng/mL
rilpivirine	EDTA plasma, vaginal swab, vaginal tissue	0.5-400 ng/mL

UNIVERSITY OF LIVERPOOL

Analyte(s)	Matrix	Calibration ranges
rilpivirine	Cervicovaginal lavage	0.1-20 ng/mL
rilpivirine	Rectal swab	0.02-20 ng/sample
rilpivirine	Vaginal swab, cervical & vaginal tissue	1-2000 ng/mL
emtricitabine, lamivudine, tenofovir	Cerebrospinal fluid	0.5-10 ng/mL
emtricitabine, lamivudine, tenofovir	Dried Breast Milk Spot (Whatman DBMS)	16-5000 ng/mL
emtricitabine, lamivudine, tenofovir, tenofovir alafenamide	EDTA plasma	1-5000 ng/mL
emtricitabine, lamivudine, tenofovir, tenofovir alafenamide	Vaginal, rectal, foreskin tissue	0.1-500 ng/sample
emtricitabine, lamivudine, tenofovir, tenofovir alafenamide	Urine	12.5-5000 ng/mL
emtricitabine, lamivudine, tenofovir, tenofovir alafenamide	Plasma separation cards (HemaSep)	0.25-250 ng/sample
emtricitabine, lamivudine, tenofovir, tenofovir alafenamide	Saliva	0.25-800 ng/mL
emtricitabine-triphosphate, lamivudine triphosphate, tenofovir-diphosphate	Dried Blood Spot (Whatman DBS)	0.25-250 pmol/sample
emtricitabine-triphosphate, lamivudine triphosphate, tenofovir-diphosphate	Plasma separation cards (HemaSep)	1.25-250 pmol/sample
tenofovir-diphosphate	Dried Breast Milk Spot (Whatman DBMS)	0.25-250 pmol/sample
emtricitabine-triphosphate, lamivudine triphosphate, tenofovir-diphosphate	Vaginal, rectal, foreskin tissue	1.25-250 nM
emtricitabine-triphosphate, tenofovir-diphosphate	PBMC lysate	0.12-600 nM
tenofovir-diphosphate	Dried Breast Milk Spot (Whatman DBMS)	0.25-250 pmol/sample
lamivudine, raltegravir	Vaginal & rectal swabs	3-4000 ng/mL
lamivudine, raltegravir	Saliva	0.5-50 ng/mL
lamivudine, raltegravir	Vaginal & rectal tissue	0.35-1000 ng/mL
atazanavir, darunavir, etravirine, lopinavir, maraviroc, ritonavir	EDTA plasma	5-15,000 ng/mL
atazanavir, darunavir, etravirine, lopinavir, maraviroc, ritonavir, raltegravir, rilpivirine, nevirapine	Cerebrospinal fluid	0.7-2500 ng/mL
lopinavir, ritonavir, amprenavir, atazanavir, darunavir, rilpivirine, etravirine, nevirapine, Efavirenz, raltegravir, maraviroc	Urine	2.5-15,000 ng/mL
salicylic acid, acetylsalicylic Acid	Citrate plasma	50-5000 ng/mL
unithiol	ACD plasma	0.1-40 µg/mL
bedaquiline, desmethyl-BDQ, clofazimine, linezolid, levofloxacin, moxifloxacin, pretomanid, rifapentine	EDTA plasma	50-45,000 ng/mL

Analyte(s)	Matrix	Calibration ranges
ethambutol, isoniazid, acetyl isoniazid, pyrazinamide, rifampicin	EDTA plasma	10-100,000 ng/mL