

**Table S1. Inter-Day Standard Calibration Curve Results**

STD Analyte	fmol/ $\mu$ L Parameter	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	Slope	y-Int	R
ATV	Theoretical conc	0.0200	0.0400	0.100	0.400	1.00	5.00	8.50	10.0			
	Mean	0.0199	0.0404	0.101	0.394	1.00	5.07	8.54	9.85	0.0316	0.00109	0.999
	SD	0.000317	0.00181	0.00352	0.0236	0.0272	0.162	0.221	0.434			
	%CV	1.6	4.5	3.5	6.0	2.7	3.2	2.6	4.4			
	%Dev	-0.5	1.1	0.5	-1.4	0.4	1.3	0.5	-1.5			
	n	6	6	6	6	6	6	6	6	3	3	3
DRV	Theoretical conc	0.0500	0.100	0.250	1.00	2.50	12.5	21.3	25.0			
	Mean	0.0494	0.104	0.241	1.00	2.46	12.7	21.6	24.8	0.00824	0.000285	0.998
	SD	0.00263	0.00754	0.0150	0.0414	0.143	0.671	0.657	1.30			
	%CV	5.3	7.3	6.2	4.1	5.8	5.3	3.0	5.2			
	%Dev	-1.1	3.7	-3.6	-0.1	-1.6	1.9	1.7	-0.9			
	n	6	6	6	6	6	6	6	6	3	3	3
EFV	Theoretical conc	0.200	0.400	1.00	4.00	10.0	50.0	85.0	100			
	Mean	0.196	0.415	1.00	3.99	9.86	50.2	84.7	99.4	0.00319	0.000201	1.000
	SD	0.00474	0.00994	0.0208	0.0623	0.157	0.551	1.75	2.32			
	%CV	2.4	2.4	2.1	1.6	1.6	1.1	2.1	2.3			
	%Dev	-1.9	3.8	0.2	-0.1	-1.4	0.4	-0.3	-0.6			
	n	6	6	6	6	6	6	6	6	3	3	3
LPV	Theoretical conc	0.0500	0.100	0.250	1.00	2.50	12.5	21.3	25.0			
	Mean	0.0489	0.103	0.254	1.01	2.54	12.6	20.5	24.2	0.0175	0.000676	0.999
	SD	0.00135	0.00205	0.0100	0.0361	0.0634	0.794	0.382	0.738			
	%CV	2.8	2.0	3.9	3.6	2.5	6.3	1.9	3.0			
	%Dev	-2.1	3.4	1.6	1.1	1.8	1.0	-3.7	-3.0			
	n	6	6	6	6	6	6	6	6	3	3	3
RTV	Theoretical conc	0.0500	0.100	0.250	1.00	2.50	12.5	21.3	25.0			
	Mean	0.0494	0.103	0.249	1.01	2.46	12.6	21.2	24.7	0.0128	0.000519	0.999
	SD	0.00204	0.00187	0.0072	0.0279	0.129	0.751	0.456	0.603			
	%CV	4.1	1.8	2.9	2.8	5.2	6.0	2.2	2.4			
	%Dev	-1.2	2.6	-0.5	1.3	-1.6	0.8	-0.2	-1.1	3	3	3
	n	6	6	6	6	6	6	6	6			

**Table S2. Stability (% difference) of analytes when compared with freshly prepared control samples. Assessments conducted at n=3 for each QC level and condition, means reported. F/T : Freeze-Thaw, ST: Short Term, PPS: Post Preparative Stability. Stock stability conducted at n=3 for each stock concentration (primary and LLOQ), mean deviation from control reported.**

Condition	Analyte QC Level	ATV		DRV		EFV		LPV		RTV	
		Low	High	Low	High	Low	High	Low	High	Low	High
F/T		0.3	3.2	3.2	5.0	-4.8	1.6	-1.3	-3.2	-3.0	2.4
ST		4.0	-5.5	-5.5	-4.1	-7.2	0.5	0.6	-1.7	-4.7	0.2
PPS		0.2	2.4	6.6	-0.2	-5.0	0.8	5.3	1.1	-2.9	-1.2
Stocks											
Primary		3.8		-1.3		1.3		-4.6		-8.2	
LLOQ		0.0		-3.5		4.0		6.3		0.0	

**Table S3. Matrix effect and recovery for each analyte ran in 5 different lots of lysed PBMC matrix at low, medium and high QC levels. Matrix effect %: (Post extraction spiked sample / Neat sample) x 100, Recovery %: (Extracted Sample / Post-Extraction Spiked Sample) x 100, Process Efficiency %: (Extracted Sample / Neat Sample) x 100.**

Analyte Level	Low	ATV Med	High	Low	DRV Med	High	Low	EFV Med	High	Low	LPV Med	High	Low	RTV Med	High	ATV-IS	EFV-IS	RTV-IS
Matrix effect %	107	105	108	104	109	110	113	113	112	106	108	110	106	109	114	101	113	109
Recovery %	72.5	72.0	71.5	80.7	69.7	72.1	74.4	68.3	70.1	75.8	70.9	70.9	77.0	68.6	68.8	73.1	71.0	71.1
Process efficiency %	77.3	77.5	77.4	83.8	76.1	79.1	83.5	77.4	78.4	79.7	76.9	77.6	81.3	74.7	78.1	78.1	80.2	77.2