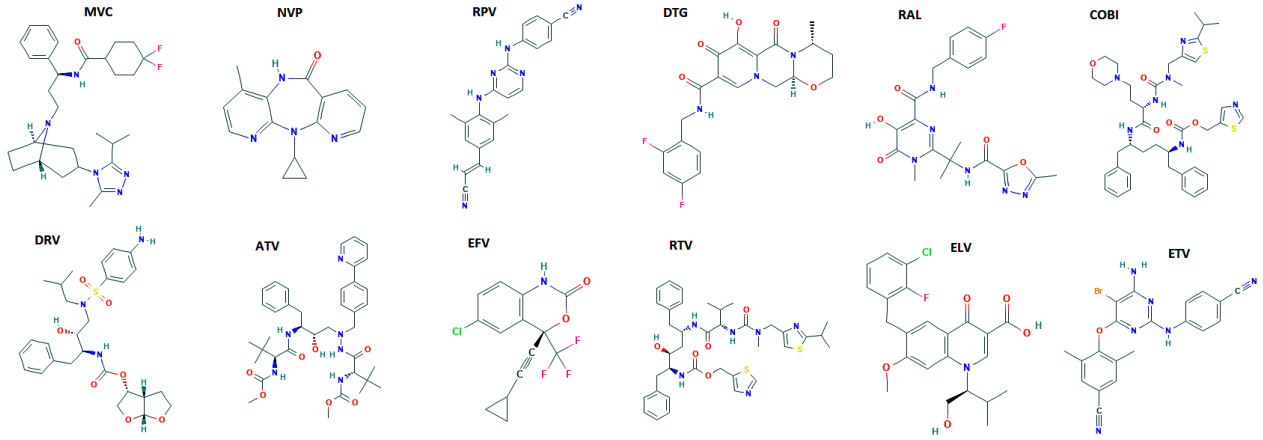
Supplementary table 1: calibration curves parameters for each analyte. Actual intercepts were set to 0 due to the adoption of a "linear through zero" with 1/x weighing calibration model. Each final model has to be considered as: "Response = Slope * concentration + 0". The mean observed intercept removing "through zero forcing" is also reported, for comparison.

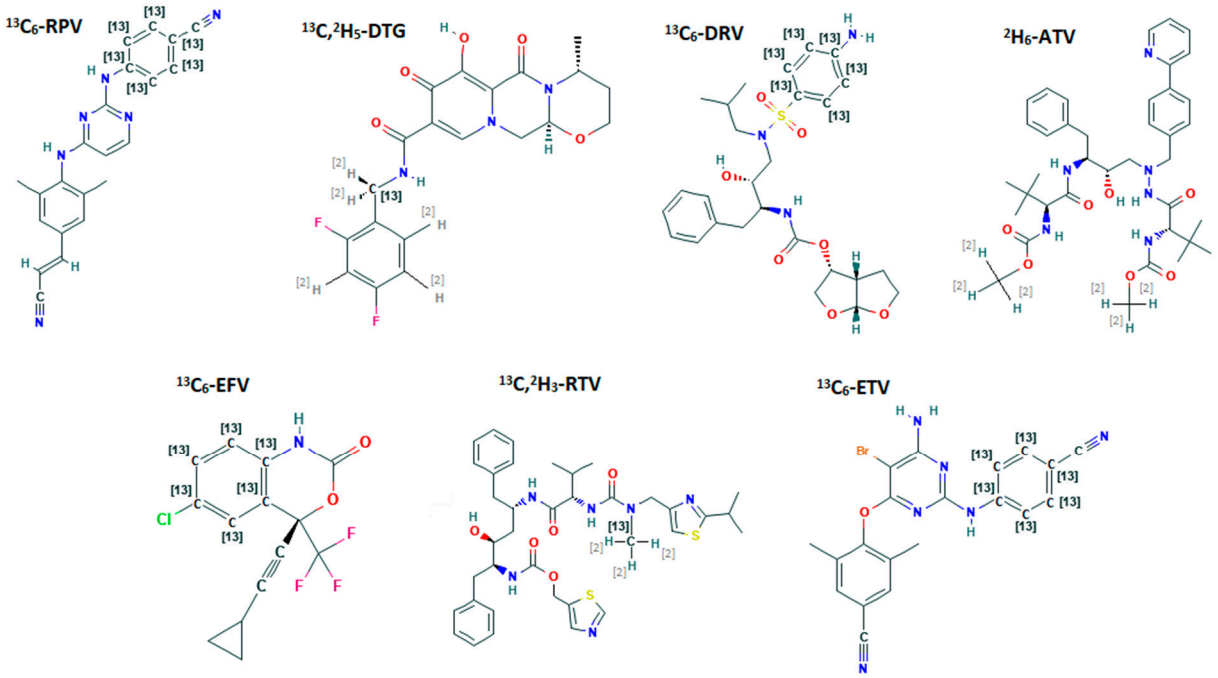
DRUGs	R^2	Slope	Slope RSD%	Intercept - without zero forcing
MVC	0.996	3.20	5.8	-0.014
NVP	0.997	6.12	6.9	0.113
RPV	0.998	3.76	8.2	0.025
DTG	0.998	1.05	5.3	0.011
RAL	0.996	1.33	6.4	0.013
COBI	0.996	0.41	7.1	0.007
DRV	0.998	0.34	9.2	0.031
ATV	0.999	0.85	8.7	0.008
EFV	0.997	0.11	3.6	0.022
RTV	0.996	5.71	4.7	0.060
ELV	0.996	4.95	8.3	0.010
ETV	0.997	1.21	4.6	0.011

Supplementary table 2: Mean accuracy percentages of the back-calculated concentrations of calibration standards during the validation sessions.

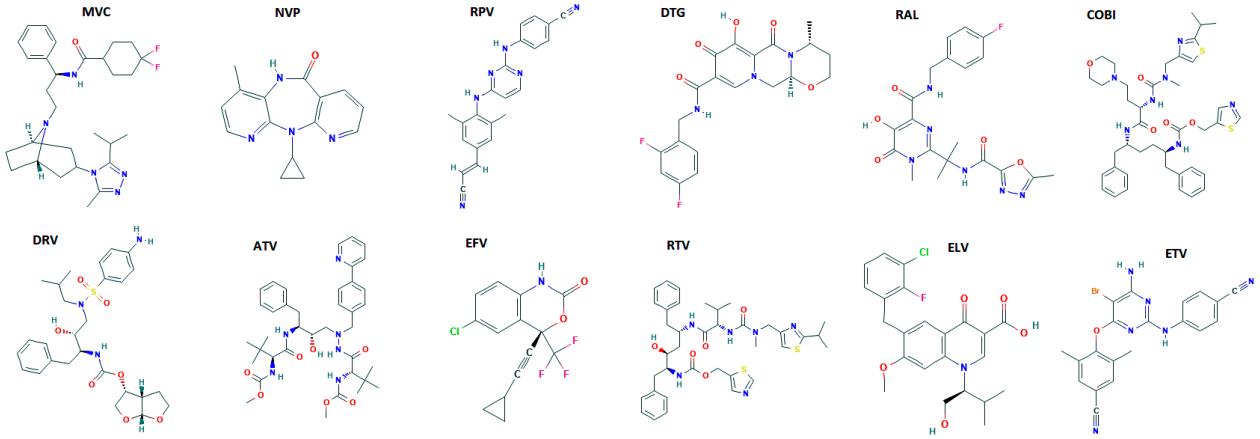
DRUGs	STD1 - LLOQ	STD2	STD3	STD4	STD5	STD6	STD7	STD8	STD9 - ULOQ
MVC	83.2	91.3	96.2	98.2	97.6	96.7	97.1	98.2	101.2
NVP	116.3	105.6	104.3	101.3	98.9	99.1	97.2	96.1	95.3
RPV	111.3	106.7	103.5	99.8	98.1	97.6	96.7	97.2	96.3
DTG	114.6	105.2	103.2	101.2	100.7	99.6	100.1	98.2	96.7
RAL	116.2	104.3	106.2	102.3	101.2	101.3	96.7	95.3	95.8
COBI	118.2	109.6	106.8	103.1	102.3	100.5	98.5	94.6	96.2
DRV	116.1	106.1	106.3	102.7	99.6	97.3	95.4	95.6	94.7
ATV	115.8	103.7	98.3	99.2	100.1	99.3	98.6	96.2	97.3
EFV	114.3	104.9	95.6	96.7	97.1	96.3	96.0	95.8	95.1
RTV	119.1	111.2	105.8	103.2	102.1	98.3	95.6	96.2	95.8
ELV	118.1	109.9	101.3	98.7	96.5	96.8	95.6	94.8	95.3
ETV	114.3	108.2	106.2	101.1	100.1	98.6	96.7	96.9	96.7



Supplementary - ARV chemical structures.



Supplementary Figure S1- SIL-ISs



Supplementary Figure S1 - ARV chemical structures