

S-Table 1. The intra- and inter-day precision and accuracy of MDZ and 1'-OH-MDZ in rabbit plasma (n=5, Mean ± SD)

QC (ng/ml)	MDZ			1'-OH-MDZ		
	Measured Concentration (ng/ml)	Accuracy (%)	Precision (%)	Measured Concentration (ng/ml)	Accuracy (%)	Precision (%)
Low(1.6/0.4)	1.70±0.07	106±4.2 9	4.0	0.40±0.04	100±9.5 8	9.6
Middle(40/10)	42.3±1.75	106±4.3 8	4.1	10.7±0.38	107±3.7 9	3.5
High(600/150)	560.6±31.3	93.4±5.2 2	5.6	157±9.96	105±6.6 4	6.3

S-Table 2. The inter-day precision and accuracy of MDZ and 1'-OH-MDZ in rabbit plasma (n=5, Mean ± SD)

QC (ng/ml)	MDZ			1'-OH-MDZ		
	Measured Concentration (ng/ml)	Accuracy (%)	Precision (%)	Measured Concentration (ng/ml)	Accuracy (%)	Precision (%)
Low(1.6/0.4)	1.62±0.12	101±7.5 0	6.2	0.40±0.03	100±8.4 3	9.0
Middle(40/10)	42.8±1.95	107±4.8 7	4.9	10.3±0.55	103±5.4 9	4.0
High(600/150)	576±40.9	95.9±6.8 1	3.1	153±12.3	102±8.2 3	4.2

S-Table 3. The recovery of MDZ and 1'-OH-MDZ in rabbit plasma (n=5, Mean ± SD)

QC	MDZ	1'-OH-MDZ
Low(1.6/0.4ng/ml)	83.6±9.63	94.8±8.68
Middle(40/10ng/ml)	89.0±2.59	88.3±3.07
High(600/150ng/ml)	91.1±5.29	86.9±3.27

S-Table 4. The matrix effect of MDZ and 1'-OH-MDZ in rabbit plasma (n=5, Mean ± SD)

QC	MDZ	1'-OH-MDZ
Low(1.6/0.4ng/ml)	101±27.1	102±26.8

Middle(40/10ng/ml)	102±10.0	90.0±29.3
High(600/150ng/ml)	96±5.25	112±6.04

S-Table 5. The stability of MDZ and 1'-OH-MDZ in rabbit plasma

(n=5, Mean ± SD)

Conditions	Stability	MDZ			1'-OH-MDZ		
		1.6 ng/ml	40 ng/ml	600 ng/ml	0.4 ng/ml	10 ng/ml	150 ng/ml
Room Temperature for 12h	Measured Conc.	1.84±0.08	41.5±1.33	550±10.9	0.34±0.04	10.8±0.07	168±0.02
	RE(%)	14.9	3.76	-8.3	3.87	6.92	2.1
Three cycles of freeze/thaw	Measured Conc.	1.73±0.19	41.9±0.77	590±3.07	0.40±0.05	10.3±0.43	160±13.3
	RE(%)	8.22	4.79	-1.53	-0.1	2.63	6.79
-80°C for 15 days	Measured Conc.	1.68±0.20	37.0±1.36	558±35.5	0.36±0.03	9.63±0.43	148±12.9
	RE(%)	5.22	-7.43	-6.92	-10.3	-3.74	-0.8
Stay on tray for 12h	Measured Conc.	1.58±0.12	39.1±2.62	536±16.7	0.35±0.02	10.1±0.72	150±9.94
	RE(%)	7.7	6.2	5.6	6.3	6.8	7.5