

A validated method for the quantification of mitragynine in sixteen commercially available Kratom (*Mitragyna speciosa*) products

This document contains Supplementary Tables 1,2 and 3 which include the peak area ratios (PAR) from which the standard curves (Figure 2) are derived for each of the three accuracy and precision analyses.

Supplementary Table 1. The associated peak area ratios (PAR) and relative errors for accuracy and precision Run 1.

	Nominal conc. ($\mu\text{g mL}^{-1}$)	Analyte area under curve	Internal std. area under curve	PAR	Recalculated conc. ($\mu\text{g mL}^{-1}$)	Relative error%
Blank	0	125	45	n/a	n/a	n/a
Zero	0	366	8657	n/a	n/a	n/a
LLOQ	5	4013	21284	0.189	4.458	-10.843
Point 1	10	15123	33002	0.458	10.750	7.499
Point 2	25	55523	51255	1.083	25.332	1.327
Point 3	40	108392	61224	1.770	41.363	3.407
Point 4	50	196016	94450	2.075	48.477	-3.047
Point 5	75	371179	118489	3.133	73.142	-2.477
ULOQ	100	448907	103263	4.347	101.479	1.479

Supplementary Table 2. The associated peak area ratios (PAR) and relative errors for accuracy and precision Run 2.

	Nominal conc. ($\mu\text{g mL}^{-1}$)	Analyte area under curve	Internal std. area under curve	PAR	Recalculated conc. ($\mu\text{g mL}^{-1}$)	Relative error%
Blank	0	101	23	n/a	n/a	n/a
Zero	0	1212	39285	n/a	n/a	n/a
LLOQ	5	19362	89189	0.217	4.446	-11.082
Point 1	10	15790	35284	0.448	10.032	0.318
Point 2	25	83586	77382	1.080	25.369	1.475
Point 3	40	154781	88459	1.750	41.601	4.002
Point 4	50	273567	133847	2.044	48.731	-2.538
Point 6	75	462246	148622	3.110	74.581	-0.559
ULOQ	100	871385	209031	4.169	100.241	0.241

Supplementary Table 3. The associated peak area ratios (PAR) and relative errors for accuracy and precision Run 3.						
	Nominal conc. ($\mu\text{g mL}^{-1}$)	Analyte area under curve	Internal std. area under curve	PAR	Recalculated conc. ($\mu\text{g mL}^{-1}$)	Relative error%
Blank	0	298	40	n/a	n/a	n/a
Zero	0	2122	53774	n/a	n/a	n/a
LLOQ	5	7610	33441	0.228	4.361	-12.789
Point 1	10	6128	13280	0.461	10.202	2.019
Point 2	25	194317	179374	1.083	25.733	2.933
Point 3	40	288962	169636	1.703	41.221	3.053
Point 4	50	443619	219922	2.017	49.057	-1.886
Point 5	75	854043	285237	2.994	73.458	-2.056
ULOQ	100	578812	141325	4.096	100.968	0.968