

**Table 1.** Validation parameters

Parameter	Results			
	Methanol		Phosphate buffer	
	Chelidonine	Sanguinarine	Chelidonine	Sanguinarine
Linearity: $y = ax + b$				
$a \pm S_a$	0.0122 ± 0.0003	0.7778 ± 0.0064	0.0882 ± 0.0012	0.6666 ± 0.0057
$b \pm S_b$	insignificant ( $\alpha=0.05$ )	insignificant ( $\alpha=0.05$ )	insignificant ( $\alpha=0.05$ )	insignificant ( $\alpha=0.05$ )
Correlation coefficient ( $r$ )	0.9997	0.9999	0.9999	0.9999
Range of linearity [ $\mu\text{g mL}^{-1}$ ]	10.0–300.0	10.0–300.0	10.0–300.0	10.0–300.0
Intra-day precision, RSD (<5% required)				
50 [ $\mu\text{g mL}^{-1}$ ]	0.8456	2.1580	1.5503	1.9230
100 [ $\mu\text{g mL}^{-1}$ ]	1.2598	2.6760	0.8952	2.0518
200 [ $\mu\text{g mL}^{-1}$ ]	0.4932	0.8348	2.4732	1.4568
Inter-day precision				
50 [ $\mu\text{g mL}^{-1}$ ]	1.5175	2.6964	2.8871	0.7888
100 [ $\mu\text{g mL}^{-1}$ ]	0.5162	1.4558	3.2923	2.9489
200 [ $\mu\text{g mL}^{-1}$ ]	0.8493	0.3817	1.9178	1.8711
Limit of detection (LOD) [ $\mu\text{g mL}^{-1}$ ]	8.99	2.68	4.58	2.79
Limit of quantification (LOQ) [ $\mu\text{g mL}^{-1}$ ]	27.27	8.14	13.88	8.45

$S_a$  standard deviation of the slope;  $S_b$  standard deviation of intercept,  $t$ , calculated values of Student's t-test,  $t_{\alpha, f} = 2.228$  critical values of Student's test for degrees of freedom  $f = 10$  and significance level  $\alpha = 0.05$ .