

Table S1. Linear equations, correlation coefficients, and linear ranges for steroidal saponins

Name	Regression equation	R ²	Linear range (μg·mL ⁻¹)
Pseudoprotodioscin	Y=6927.7X-14494.0	0.9992	23.60–188.80
Polyphyllin VII	Y=6202.0X-3225.4	0.9997	20.65–165.20
Polyphyllin H	Y=6513.7X-9075.1	0.9992	23.25–186.00
Polyphyllin II	Y=6141.8X-6846.1	0.9991	20.55–164.40
Dioscin	Y=6703.0X-14192.0	0.9994	30.65–245.20
Polyphyllin I	Y=6898.5X-30902.0	0.9996	31.85–254.80

Table S2. Steroidal saponin spiked recovery experiments

Name	Weighing volume (g)	Saponin content (μg)	Amount added (μg)	Measured amount (μg)	Recovery rate (%)	Mean value (%)	RSD (%)
Pseudoprotodioscin	0.2504	31.801	23.600	54.399	95.75	95.80	1.10
	0.2502	31.775	23.600	54.449	96.07		
	0.2509	31.864	23.600	54.264	94.92		
	0.2508	31.852	23.600	54.327	95.23		
	0.2501	31.763	23.600	54.854	97.84		
	0.2505	31.814	23.600	54.225	94.96		
Polyphyllin VII	0.2504	246.143	206.500	450.188	98.81	98.40	1.79
	0.2502	245.947	206.500	449.714	98.68		
	0.2509	246.635	206.500	445.664	96.38		
	0.2508	246.536	206.500	445.937	96.56		
	0.2501	245.848	206.500	449.687	98.71		
	0.2505	246.242	206.500	455.381	101.28		
Polyphyllin H	0.2504	113.431	116.250	231.918	101.92	101.75	2.76
	0.2502	113.341	116.250	234.144	103.92		

	0.2509	113.658	116.250	228.261	98.58		
	0.2508	113.612	116.250	230.523	100.57		
	0.2501	113.295	116.250	236.397	105.89		
	0.2505	113.477	116.250	229.248	99.59		
Polyphyllin II	0.2504	696.112	616.500	1306.988	99.09	98.81	0.88
	0.2502	695.556	616.500	1309.100	99.52		
	0.2509	697.502	616.500	1303.691	98.33		
	0.2508	697.224	616.500	1309.325	99.29		
	0.2501	695.278	616.500	1308.215	99.42		
	0.2505	696.390	616.500	1295.831	97.23		
Dioscin	0.2504	82.382	91.950	176.004	101.82	102.52	0.90
	0.2502	82.316	91.950	176.108	102.00		
	0.2509	82.546	91.950	175.985	101.62		
	0.2508	82.513	91.950	176.733	102.47		
	0.2501	82.283	91.950	177.395	103.44		
	0.2505	82.415	91.950	177.852	103.79		
Polyphyllin I	0.2504	163.511	159.250	320.222	98.41	98.72	0.84
	0.2502	163.381	159.250	320.966	98.95		
	0.2509	163.838	159.250	318.762	97.28		
	0.2508	163.772	159.250	320.892	98.66		
	0.2501	163.315	159.250	321.857	99.56		
	0.2505	163.577	159.250	321.995	99.48		