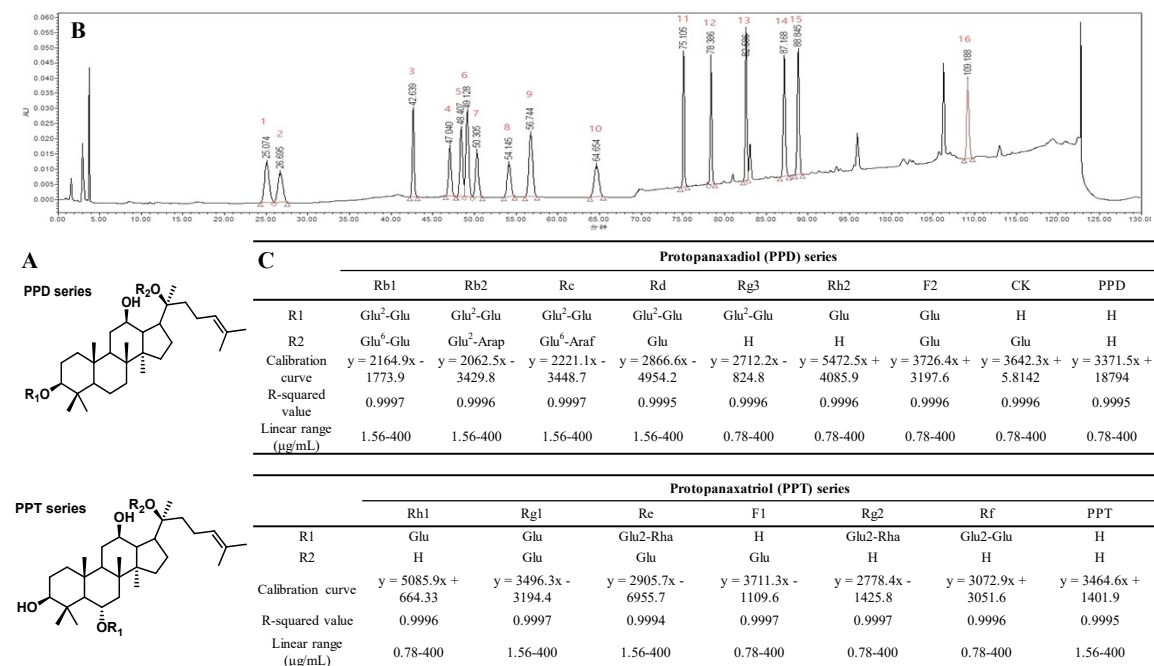


Supplementary information:



Supplementary Fig. 1. (A) The structure of PPD- and PPT-type ginsenosides, (B) chromatogram of 16 ginsenosides standards, (C) calibration curves of 16 ginsenosides.

**Supplementary Table 1.** The ion-pair list of precursor and product ions and the collision energy of the 16 ginsenosides

Ginsenoside	Precursor ion (m/z)	Product ion 1 (m/z)	Collision energy 1 (eV)	Product ion 2 (m/z)	Collision energy 2 (eV)
Rb1	1107.7	945.6	65	783.4	65
Rb2	1077.4	915.4	58	621.4	70
Rc	1077.7	945.4	62	783.4	62
Rd	945.5	783.5	50	621.4	70
Rg3	783.3	459.2	62	375	72
Rh2	621.3	375.1	60	/	/
F2	783.5	621.4	48	/	/
CK	621.3	459.3	28	375.4	58
PPD	459.2	401.1	32	358.9	60
Rh1	683.3	637.4	30	475.4	42
Rg1	799.5	637.4	35	179	35
Re	945.5	637.4	56	475.4	65
F1	683.3	637.4	28	475.3	36
Rg2	783.3	475.4	52	637.4	42
Rf	799.5	637.4	35	475.4	35
PPT	475.3	389.3	44	373.3	46