Table 1. Composition of YPS.

Herbal medicine	Scientific name	Family	Part	Origin	Amount (g)
Forsythiae Fructus	*Forsythia viridissima* Lindley	Oleaceae	Fruit	Uiseong, Korea	368.5
Lonicerae Flos	*Lonicera japonica* Thunberg	Caprifoliaceae	Flower	China	368.5
Schizonepetae Spica	*Schizonepeta tenuifolia* Briquet	Labiatae	Spike	Yeongcheon, Korea	368.5
Saposhnikoviae Radix	*Saposhnikovia divaricata* Schischkin	Umbelliferae	Root	China	368.5
Osterici seu Notopterygii Radix et Rhizoma	*Ostericum koreanum* Maximowicz	Umbelliferae	Root	Pyeongchang, Korea	368.5
Araliae Continentalis Radix	*Aralia continentalis* Kitagawa	Araliaceae	Root	Uiseong, Korea	368.5
Bupleuri Radix	*Bupleurum falcatum* Linné	Umbelliferae	Root	Cheongsong, Korea	368.5
Cnidii Rhizoma	*Cnidium officinale* Makino	Umbelliferae	Rhizome	Yeongyang, Korea	368.5
Aurantii Fructus Immaturus	*Citrus aurantium* Linné	Rutaceae	Fruit	China	368.5
Platycodonis Radix	*Platycodon grandiflorum* A. De Candolle	Campanulaceae	Root	Yeongju, Korea	368.5
Poria Sclerotium	*Poria cocos* Wolf	Polyporaceae	Sclerotium	Bonghwa, Korea	368.5
Glycyrrhizae Radix et Rhizoma	*Glycyrrhiza uralensis* Fischer	Leguminosae	Root and rhizome	China	368.5
Menthae Herba	*Mentha arvensis* Linné var. *piperascens* Malinvaud ex Holmes	Labiatae	Aerial part	Uiseong, Korea	368.5
Zingiberis Rhizoma Recens	*Zingiber officinale* Roscoe	Zingiberaceae	Rhizome	Seosan, Korea	210.1
				Total (g)	5000.6

Table S2. Chromatographic parameters for HPLC analysis of the 12 marker components in YPS

Chromatographic parameter			
Column	SunFire C_{18} analytical column (250 × 4.6 mm, 5 μm)		
Detector	PDA (254, 275, 280, 290, 300, 310, 320, and 325 nm)		
Flow rate (mL/min)	1		
Injection volume (μL)	10		
Column temperature (°C)	40		
Mobile phase	A: 0.1% aqueous formic acid B: 0.1% formic acid in acetonitrile		
Gradient elution	Time (min)	A (%)	B (%)
	0	95	5
	50	40	60
	60	0	100
	70	0	100
	80	95	5

Table S3. MRM parameters for LC–MS/MS analysis of 12 marker components in YPS

Compound	Mode	MW (*m/z*)	Transition (Q1→Q3, *m/z*)	Collision energy (eV)	Cone voltage (V)
3-CQA	Negative	354.31	353.2→191.0	15	20
CFG	Positive	468.45	469.3→307.2	25	70
FA	Positive	194.18	195.0→177.0	10	30
LIQA	Negative	550.51	549.3→255.0	30	45
NAR	Negative	580.54	579.3→271.2	30	45
5-MVS	Positive	452.46	453.0→291.3	20	40
NAG	Negative	580.53	579.2→271.1	20	60
NHES	Positive	610.56	611.1→303.2	20	15
OPDH	Positive	304.29	304.9→203.3	25	45
GA	Negative	822.93	821.6→351.0	40	45
ARC	Positive	372.42	373.2→137.0	25	55
6-GIN	Positive	294.39	295.3→177.0	10	35

Table S4. System suitability of the 12 marker compounds using HPLC–PDA

Compound	*k′*	*α*	*N*	*Rs*	*Tf*
3-CQA	4.02	1.34	276247.92	39.18	1.28
CFG	5.39	1.13	659693.29	19.59	1.20
LIQA	6.11	1.07	445672.81	9.42	1.29
FA	6.51	1.04	513164.25	7.57	1.14
NAR	6.80	1.02	787314.94	4.16	1.19
5-MVS	6.95	1.02	919250.48	4.34	1.09
NAG	7.10	1.07	831118.75	4.34	1.12
NHES	7.61	1.25	797104.37	50.58	1.14
OPDH	9.49	1.32	1369253.23	50.58	1.16
ARC	12.53	1.09	1152640.02	21.51	1.10
GA	13.62	1.09	1294145.73	15.60	1.28
6-GIN	14.44	1.06	1319175.05	15.60	1.11

Table S5. The linear range, regression equation, r^2, LODs, and LOQs of the analytes from YPS using LC–MS/MS (n = 3)

Compound	Retention time (min)	Linear range (ng/mL)	Regression equation ($y = ax + b$)[a]	r^2	LOD (ng/mL)[b]	LOQ (ng/mL)[c]
3-CQA	1.98	10.00–1000.00	$y = 106.58x + 3056.04$	0.9953	0.194	0.581
CFG	4.30	10.00–1000.00	$y = 4070.16x - 30949.95$	0.9998	0.010	0.029
FA	4.65	10.00–1000.00	$y = 408.37x + 11427.29$	0.9934	1.135	3.404
LIQA	4.66	10.00–1000.00	$y = 250.11x + 181.72$	0.9997	0.040	0.119
NAR	5.12	10.00–1000.00	$y = 404.66x - 13673.67$	0.9929	0.501	1.502
5-MVS	5.30	10.00–1000.00	$y = 10022.68x + 172071.80$	0.9967	0.004	0.011
NAG	5.30	10.00–1000.00	$y = 75.10x - 1828.87$	0.9977	0.192	0.577
NHES	5.61	10.00–1000.00	$y = 821.88x + 658.91$	0.9995	0.019	0.057
OPDH	6.58	10.00–1000.00	$y = 12060.16x + 452546.31$	0.9916	0.003	0.008
GA	8.10	10.00–1000.00	$y = 8.88x + 103.33$	0.9988	0.710	2.131
ARC	8.20	10.00–1000.00	$y = 23944.37x + 777382.03$	0.9927	0.002	0.005
6-GIN	8.94	10.00–500.00	$y = 681.94x + 11738.88$	0.9931	0.116	0.349

[a] y and x are peak area and concentration of compound, respectively

[b] LOD = 3.3 × S/N

[c] LOQ = 10 × S/N

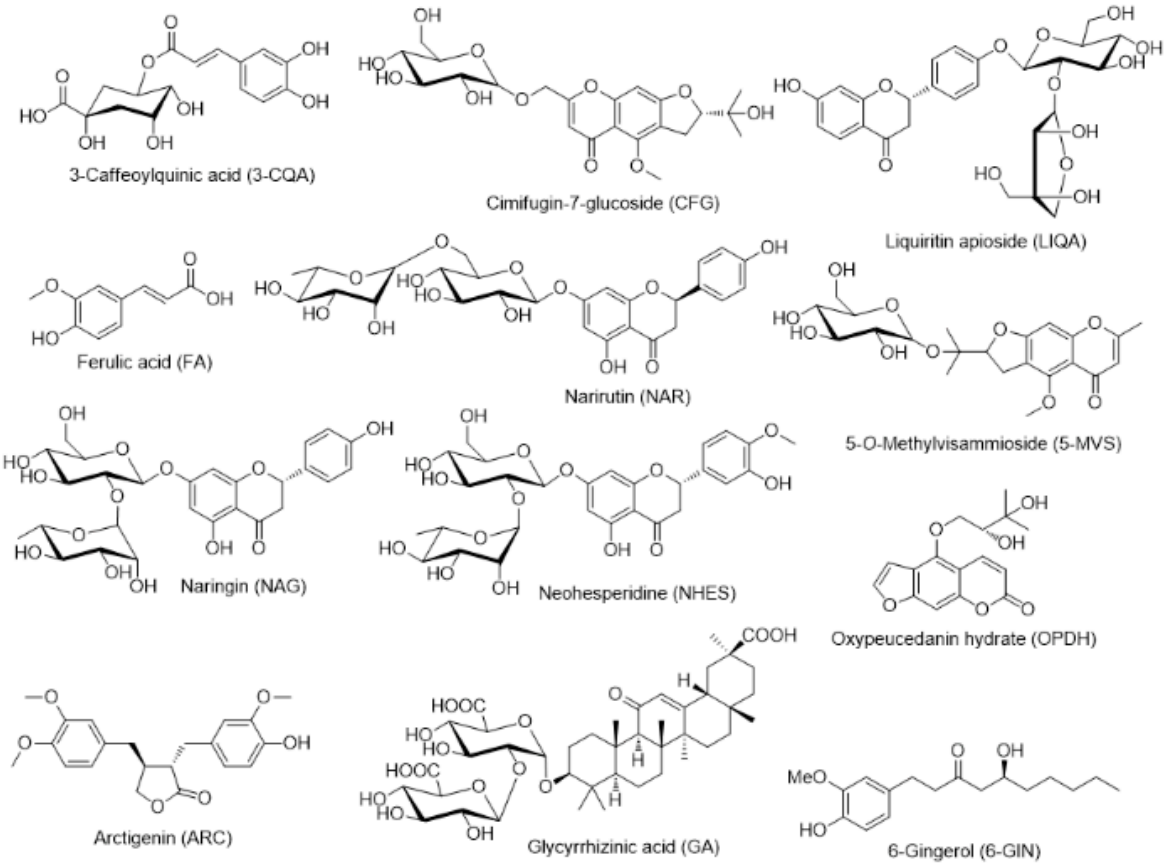

Figure S1. Chemical structures of 12 biomarker components in YPS