Table S1. Composition and dosage of herbal ingredients in Yi-qi-hua-yu-jie-du decoction (YJD)

Scientific name*	Weight
Astragalus mongholicus Bunge	15g
Codonopsis pilosula (Franch.) Nannf.	15g
Citrus × acida Pers.	6g
Pinellia tuberifera Ten.	10g
Poria cocos	10g
Aucklandia costus Falc.	6g
Wurfbainia uliginosa (J.Koenig) Giseke	3g
Atractylodes macrocephala Koidz	10g
Paeonia lactiflora Pall.	10g
Angelica sinensis (Oliv.) Diels	10g
Sparganium stoloniferum (Buch.-Ham. ex Graebn.) Buch.-Ham. ex Juz	10g
Curcuma aromatica Salisb	10g
Salvia chinensis Benth.	30g
Scleromitrion angustifolium (Cham. & Schltdl.) Benth.	30g
Glycyrrhiza glabra L.	5g

*** The name has been validated at www.theplantlist.org.**

Table S2. The content of the marker compounds in YJD

Name	CAS No	Content in YJD ($ng \cdot mg^{-1}$)
Astragaloside IV	84687-43-4	26.970
Calycosin-7-O-beta-D-glucoside	20633-67-4	144.007
Lobetyolin	136085-37-5	99.204
Atractylenolide III	73030-71-4	32.020
Paeoniflorin	23180-57-6	2305.240
Ferulic acid	1135-24-6	145.685
Succinic acid	110-15-6	682.296
Hesperidin	520-26-3	2239.183
Pachymic acid	29070-92-6	6.024
Dehydrocostus lactone	477-43-0	36.739
Rutin	153-18-4	234.124
Curcumin	458-37-7	50.275
Rosmarinic acid	20283-92-5	95.101
Salvianolic acid B	121521-90-2	496.713
p-Coumaric acid	501-98-4	334.314
Liquiritin	551-15-5	486.248

Method S1. Sample preparation and analysis method

Standard reagents were purchased from Chengdu Must Biotechnology Co (China). Mixed standard working fluids (1–1000 ng/mL) were prepared. Freeze-dried YJD powder (20 mg) was weighed and dissolved in 10 mL double-distilled water. Then, 500 μL of the above solution was diluted to 10 mL and the supernatant was collected for LC/MS analysis.

Chromatographic conditions: The Altis-002 (Thermo, USA) and ACE Excel 3 C18-AR column (ACE, UK) were applied to the liquid chromatography analysis. Mobile phase A was 2 mM ammonium formate, and mobile phase B was acetonitrile. The gradient elution program was as follows: 0–10 min 78% A + 22% B, 10–26 min 15% A + 85% B, 26–30 min 78% A + 22% B.

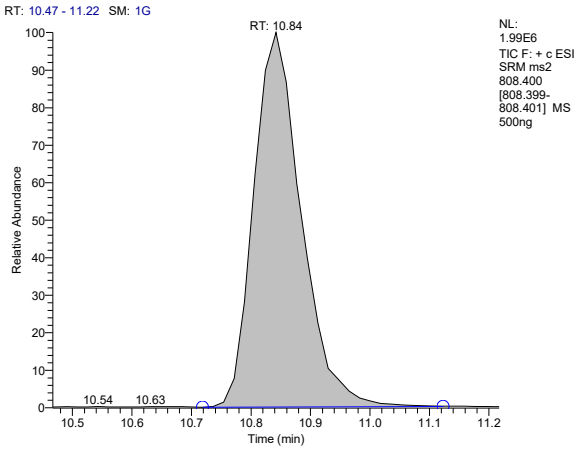
Mass spectrometry conditions: The flow rate of the sheath gas was 50.0 Arb, and that of the auxiliary gas was 10.0 Arb. The ion spray voltages were 3500 V and 2500 V for the positive and negative modes, respectively.

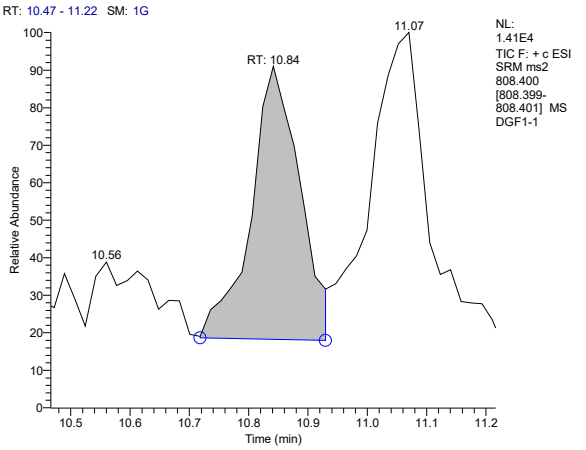
The concentration of each marker compound in YJD was determined based on the standard curve for each reagent and the signal intensity of the corresponding substance in YJD.

Fig. S1 The secondary mass spectra of the marker compounds in the standard reagent and YJD.

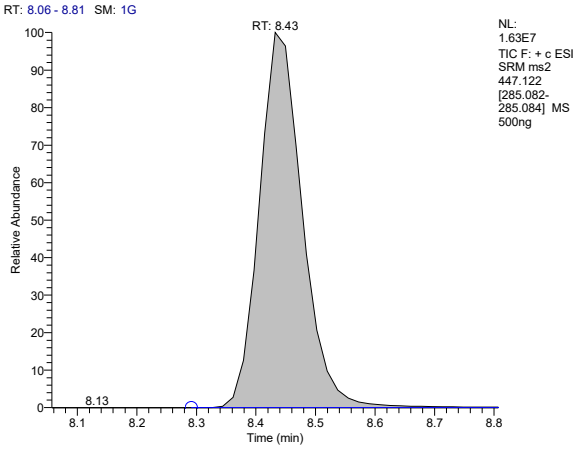
Standard reagent **YJD**

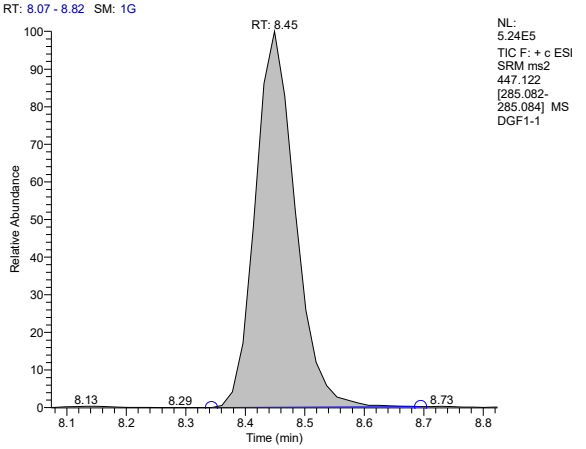
1. Astragaloside IV



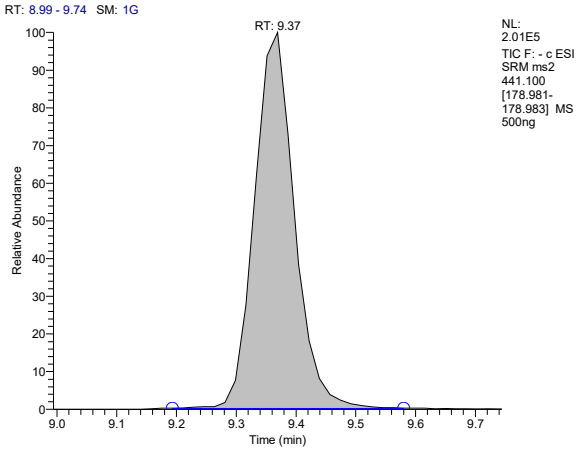


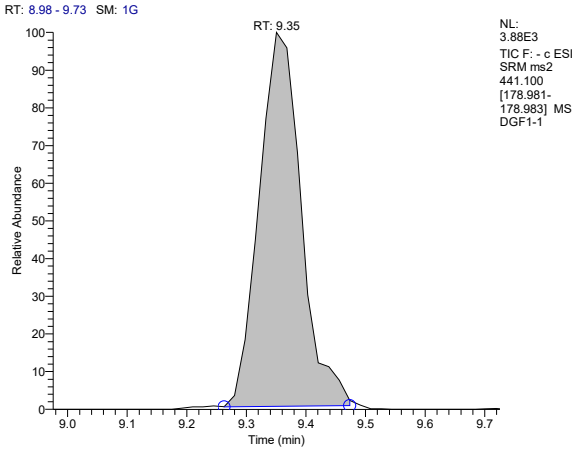
2. Calycosin-7-O-beta-D-glucoside



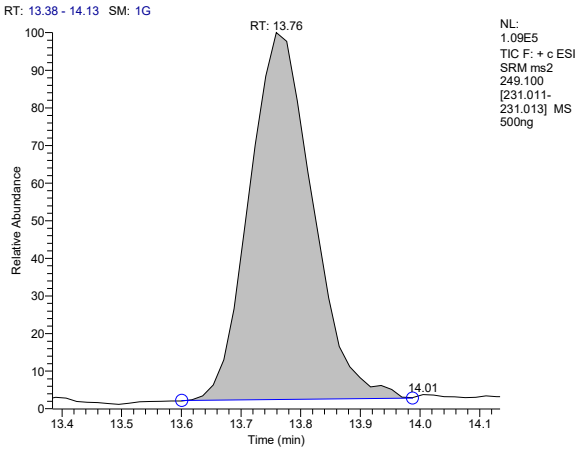


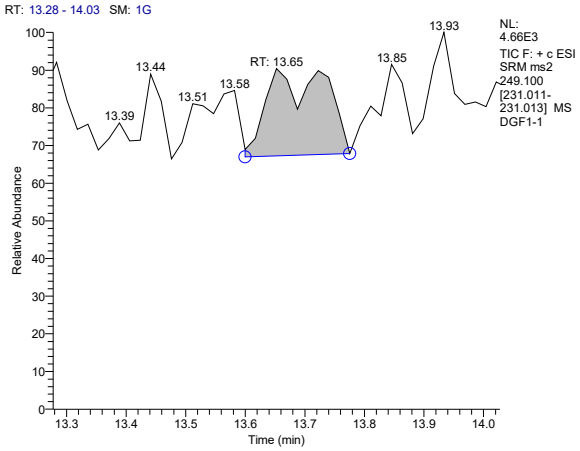
3. Lobetyolin



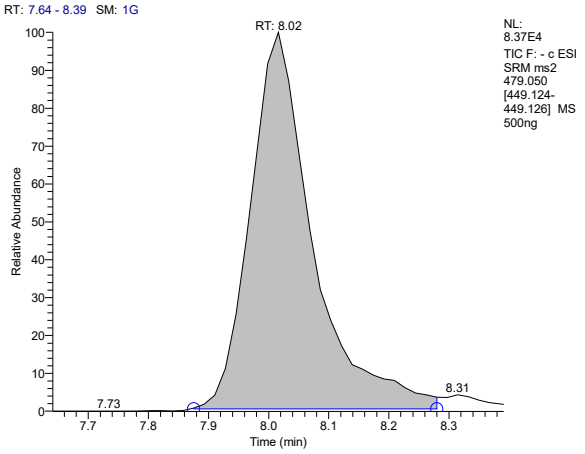


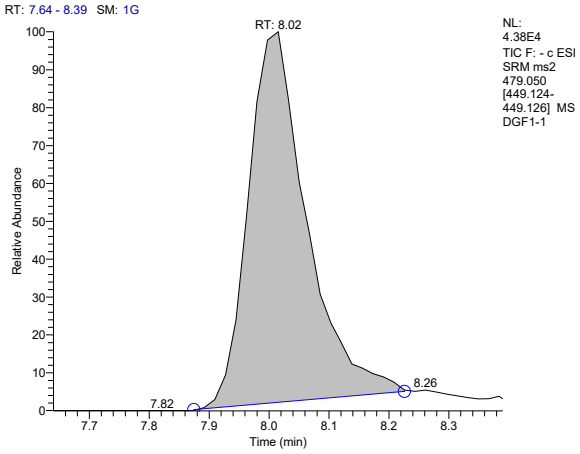
4. Atractylenolide III



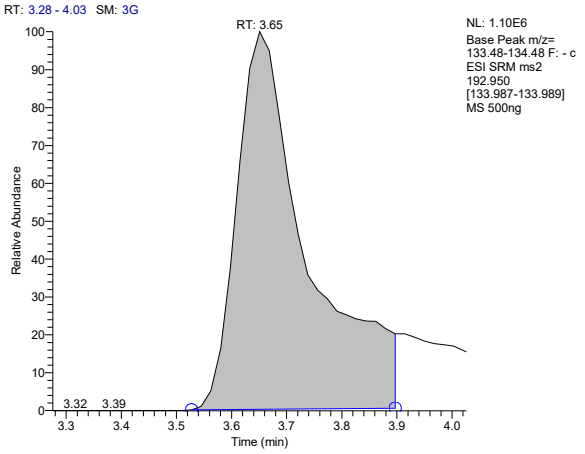


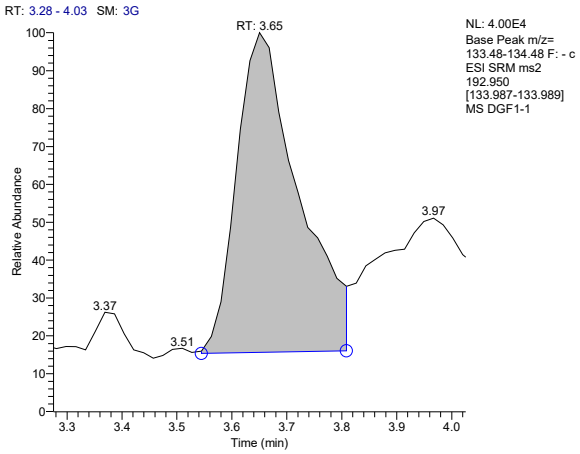
5. Paeoniflorin



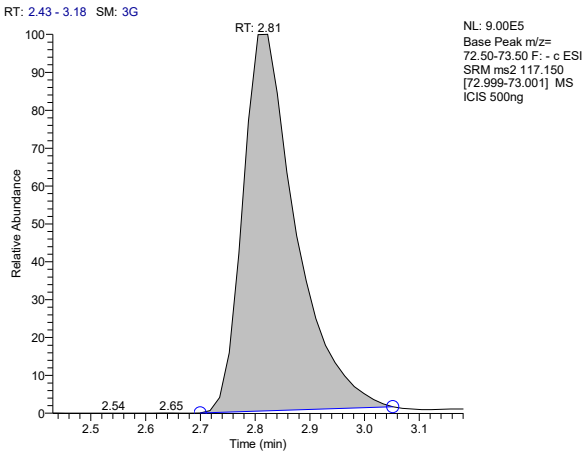


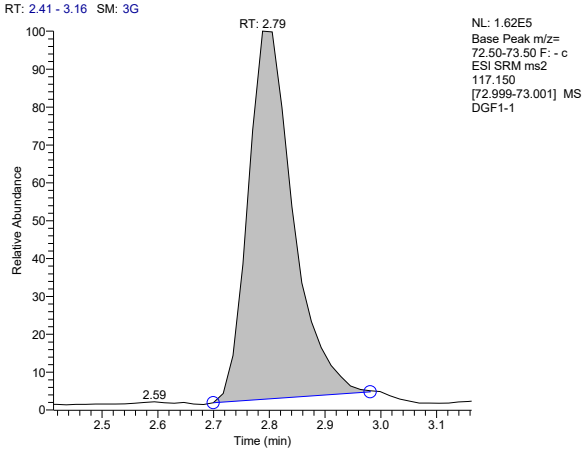
6. Ferulic acid



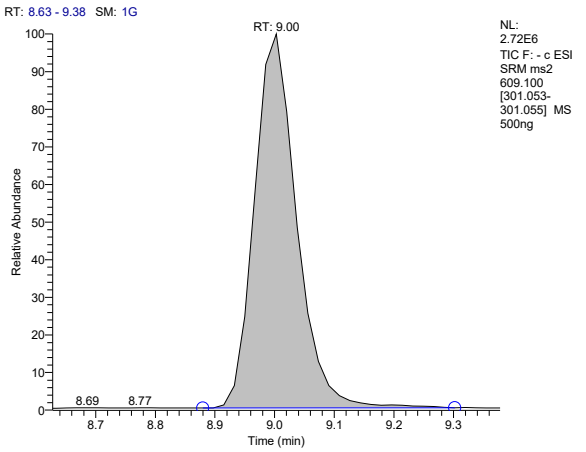


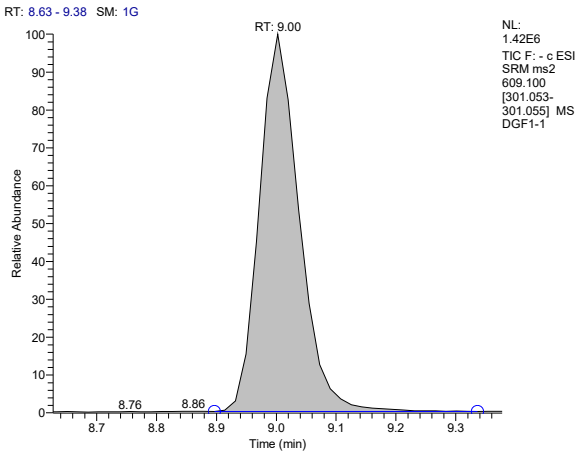
7. Succinic acid



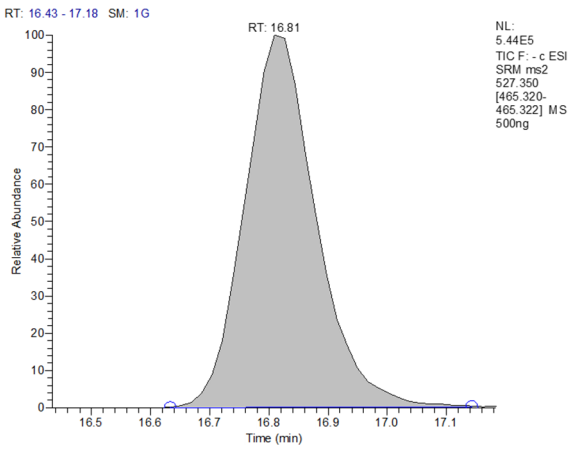


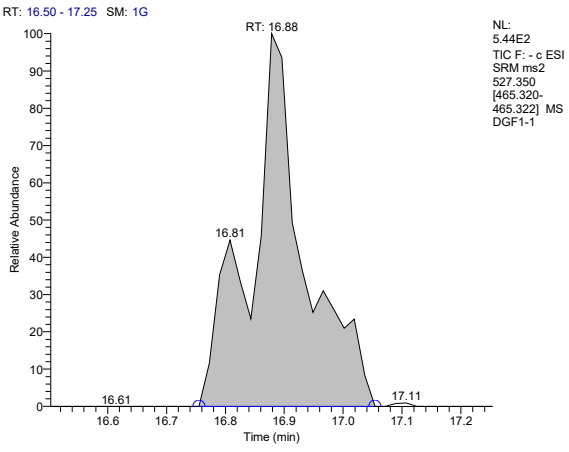
8. Hesperidin



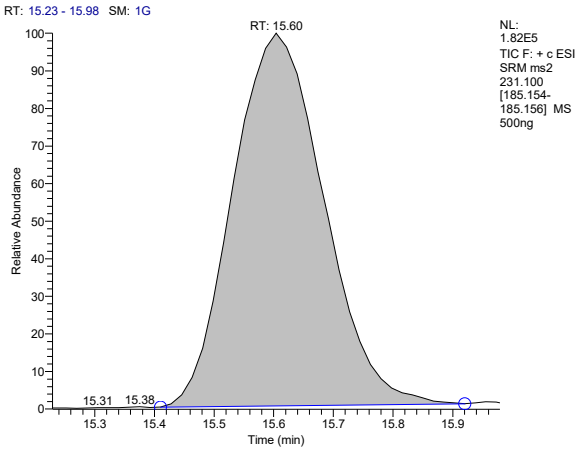


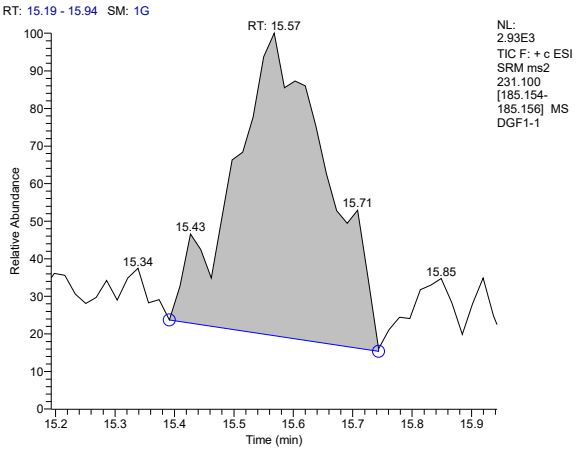
9. Pachymic acid



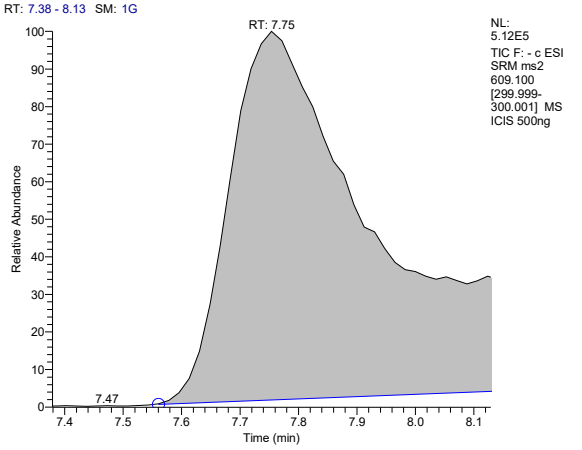


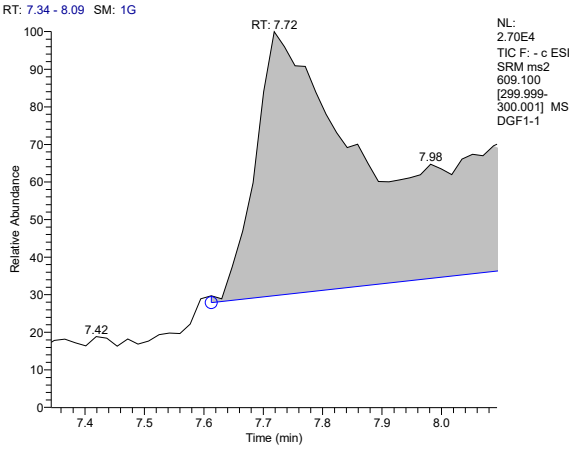
10. Dehydrocostus lactone



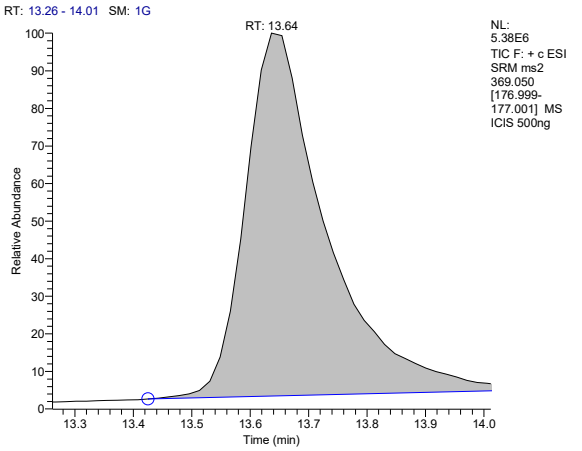


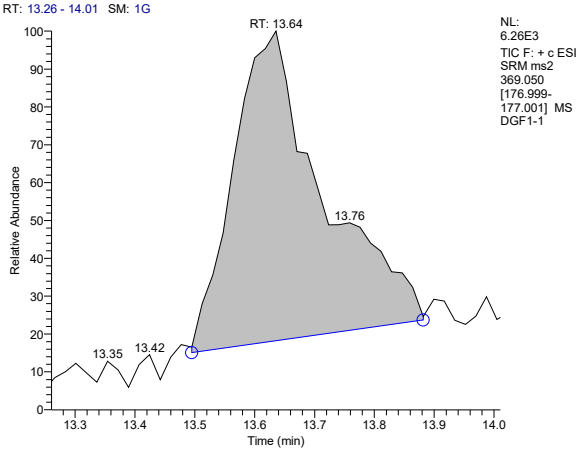
11. Rutin



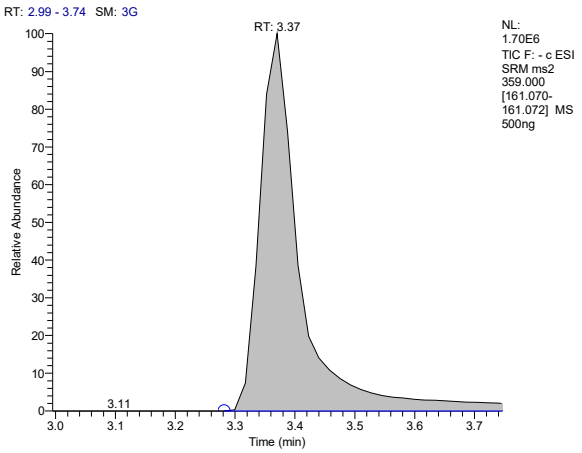


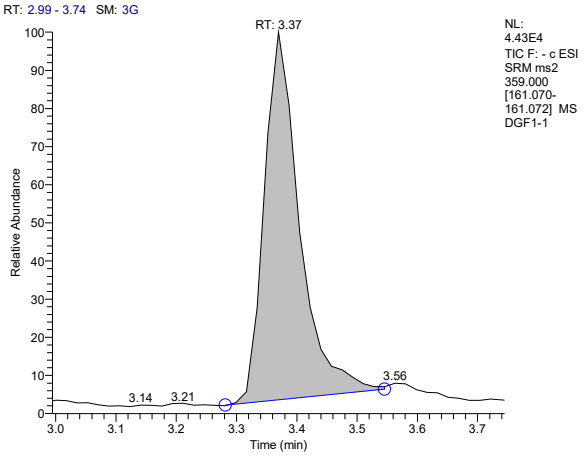
12. Curcumin



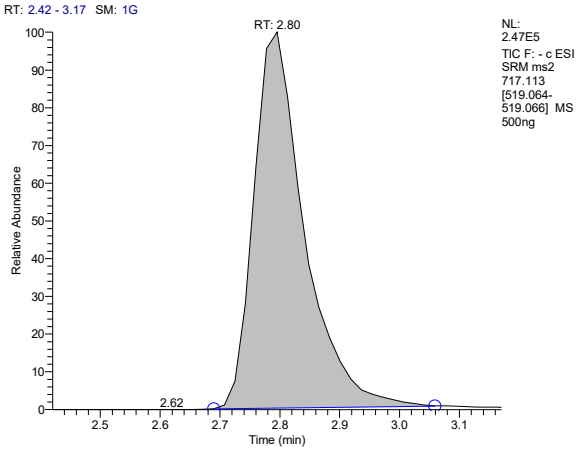


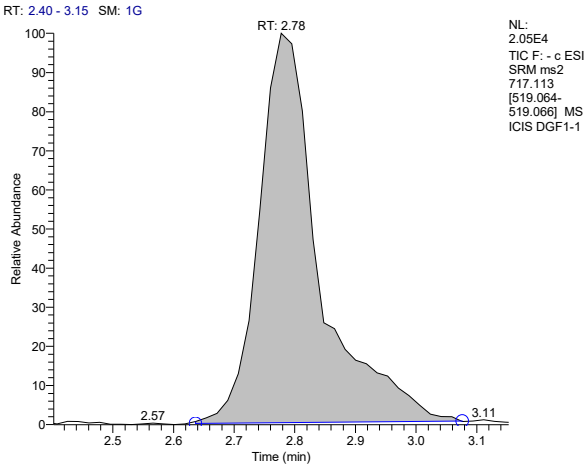
13. Rosmarinic acid



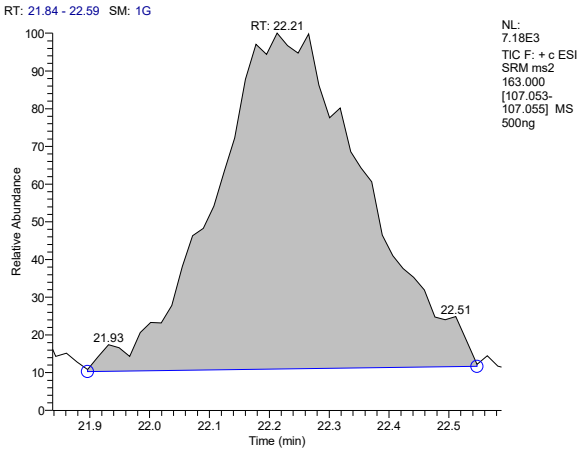


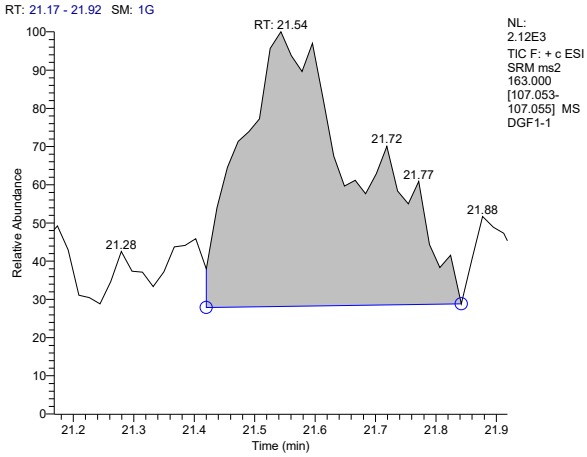
14. Salvianolic acid B



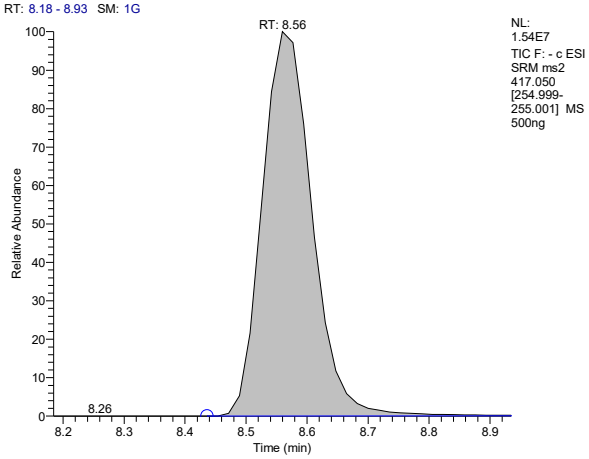


15. p-Coumaric acid





16. Liquiritin



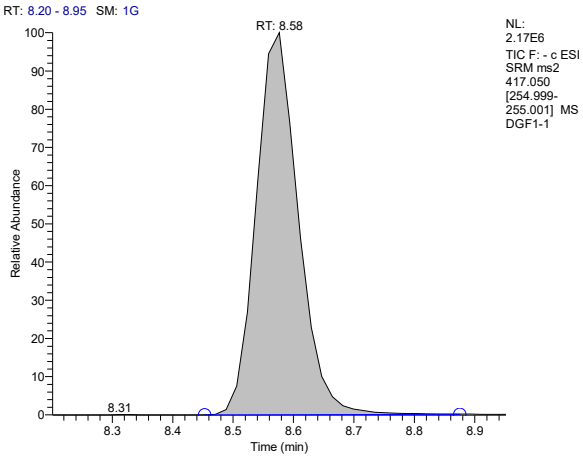


Table S3. The active ingredients of Yi-qi-hua-yu-jie-du decoction (YJD)

NO	Proposed compound	CAS	PubChem CID	Canonical SMILES
YJD1	Quinic acid	77-95-2	6508	C1C(C(C(CC1(C(=O)O)O)O)O)O)O
YJD2	Tyrosine	60-18-4	6057	C1=CC(=CC=C1CC(C(=O)O)N)O
YJD3	Danshensu	76822-21-4	11600642	C1=CC(=C(C=C1CC(C(=O)O)O)O)O
YJD4	trans-caffeic acid	501-16-6	689043	C1=CC(=C(C=C1C=CC(=O)O)O)O
YJD5	Tryptophan	73-22-3	6305	C1=CC=C2C(=C1)C(=CN2)CC(C(=O)O)N
YJD6	Dihydrocaffeic acid	1078-61-1	348154	C1=CC(=C(C=C1CCC(=O)O)O)O
YJD7	Codonopsine	26989-20-8	442631	CC1C(C(C(N1C)C2=CC(=C(C=C2)OC)OC)O)O
YJD8	cis-caffeic acid	4361-87-9	1549111	C1=CC(=C(C=C1C=CC(=O)O)O)O
YJD9	Ferulic acid	537-98-4	445858	COC1=C(C=CC(=C1)C=CC(=O)O)O
YJD10	Trans-Melilotoside	618-67-7	5280759	C1=CC=C(C(=C1)C=CC(=O)O)OC2C(C(C(C(O2)CO)O)O)O
YJD11	Isofraxidin	486-21-5	5318565	COC1=C(C(=C2C(=C1)C=CC(=O)O2)OC)O
YJD12	7-Hydroxycoumarin	93-35-6	5281426	C1=CC(=CC2=C1C=CC(=O)O2)O
YJD13	loliolide	5989/2/6	100332	CC1(CC(CC2(C1=CC(=O)O2)C)O)C
YJD14	Syringaldehyde	134-96-3	8655	COC1=CC(=CC(=C1O)OC)C=O
YJD15	paeoniflorin	23180-57-6	442534	CC12CC3(C4CC1(C4(C(O2)O3)COC(=O)C5=CC=CC=C5)OC6C(C(C(C(O6)CO)O)O)O)O
YJD16	Scopoletin	92-61-5	5280460	COC1=C(C=C2C(=C1)C=CC(=O)O2)O
YJD17	Germacrone-4,5-epoxide	92691-35-5	11637239	CC1=CCCC2(C(O2)CC(=C(C)C)C(=O)C1)C
YJD18	Salvianolic acid J	-	24177556	C1=CC(=C(C=C1CC(C(=O)O)OC(=O)C=CC2=CC3=C(C=C2)OC(C(O3)C(=O)O)C4=CC(=C(C=C4)O)O)O)O
YJD19	Zedoalactone A	-	15226639	CC1=C2CC3C(CCC3(C)O)C(CC2OC1=O)(C)O
YJD20	Liquiritigenin	578-86-9	114829	C1C(OC2=C(C1=O)C=CC(=C2)O)C3=CC=C(C=C3)O
YJD21	camphoric acid	560-05-4	21491	CC1(C(CCC1(C)C(=O)O)C(=O)O)C
YJD22	Luteolin	491-70-3	5280445	C1=CC(=C(C=C1C2=CC(=O)C3=C(C=C(C=C3O2)O)O)O)O
YJD23	Perlolyrine	29700-20-7	160179	C1=CC=C2C(=C1)C3=C(N2)C(=NC=C3)C4=CC=C(O4)CO
YJD24	Acacetin	480-44-4	5280442	COC1=CC=C(C=C1)C2=CC(=O)C3=C(C=C(C=C3O2)O)O

YJD25	kaempferol	520-18-3	5280863	C1=CC(=CC=C1C2=C(C(=O)C3=C(C=C(C=C3O2)O)O)O)O
YJD26	Liquiritin	551-15-5	503737	C1C(OC2=C(C1=O)C=CC(=C2)O)C3=CC=C(C=C3)OC4C(C(C(C(O4)CO)O)O)O
YJD27	Hesperetin	520-33-2	72281	COC1=C(C=C(C=C1)C2CC(=O)C3=C(C=C（C=C3O2)O)O)O
YJD28	Methylnissolin-3-O-glucoside	94367-42-7	101679160	COC1=C(C2=C(C=C1)C3COC4=C(C3O2)C=CC(=C4)OC5C(C(C(C(O5)CO)O)O)O)OC
YJD29	pratensein	2284-31-3	5281803	COC1=C(C=C(C=C1)C2=COC3=CC(=CC(=C3C2=O)O)O)O
YJD30	Isoliquiritigenin	961-29-5	638278	C1=CC(=CC=C1C=CC(=O)C2=C(C=C(C=C2)O)O)O
YJD31	Calycosin	20575-57-9	5280448	COC1=C(C=C(C=C1)C2=COC3=C(C2=O)C=CC(=C3)O)O
YJD32	Poncirin	14941-08-3	442456	CC1C(C(C(C(O1)OC2C(C(C(OC2OC3=CC(=C4C(=O)CC(OC4=C3)C5=CC=C(C=C5)OC)O)CO)O)O)O)O)O
YJD33	Biochanin A	491-80-5	5280373	COC1=CC=C(C=C1)C2=COC3=CC(=CC(=C3C2=O)O)O
YJD34	Sinensetin	2306-27-6	145659	COC1=C(C=C(C=C1)C2=CC(=O)C3=C(C(=C(C=C3O2)OC)OC)OC)OC
YJD35	Alizarin	72-48-0	6293	C1=CC=C2C(=C1)C(=O)C3=C(C2=O)C(=C(C=C3)O)O
YJD36	Curcumenone	100347-96-4	153845	CC(=C1CC2C(C2(CC1=O)C)CCC(=O)C)C
YJD37	asiatic acid	464-92-6	119034	CC1CCC2(CCC3(C(=CCC4C3(CCC5C4(CC(C(C5(C)CO)O)O)O)C)C)C2C1C)C)C(=O)O
YJD38	formononetin	485-72-3	5280378	COC1=CC=C(C=C1)C2=COC3=C(C2=O)C=CC(=C3)O
YJD39	Nobiletin	478-01-3	72344	COC1=C(C=C(C=C1)C2=CC(=O)C3=C(O2)C(=C(C(=C3OC)OC)OC)OC)OC
YJD40	Astragaloside III	84687-42-3	441905	CC1(C(CCC23C1C(CC4C2(C3)CCC5(C4(CC(C5C6(CCC(O6)C(C)(C)O)C)O)C)C)O)OC7C(C(C(CO7)O)O)OC8C(C(C(C(O8)CO)O)O)O)C
YJD41	Atractylenolide II	73069-14-4	14448070	CC1=C2CC3C(=C)CCCC3(CC2OC1=O)C

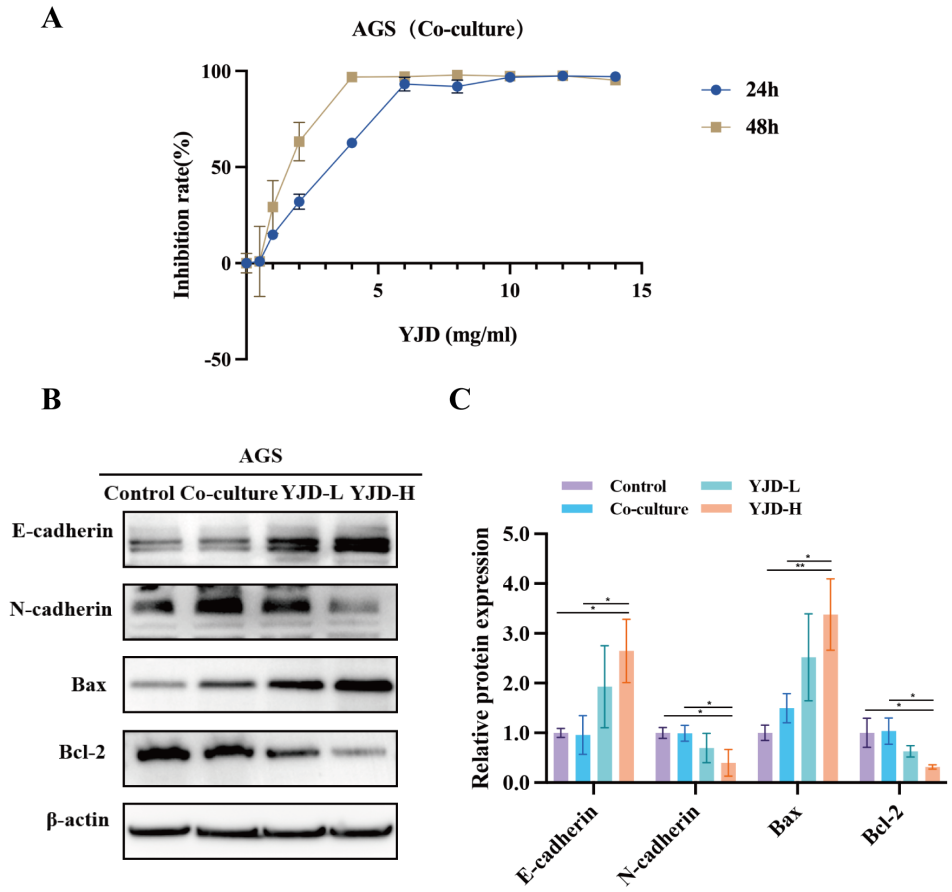


Fig. S2 YJD suppresses AGS cell proliferation and induces apoptosis via TAM modulation in vitro. （A）Viability of AGS cells exposed to conditioned medium from YJD-treated macrophages.（B）Western blotting analysis of E-cadherin, N-cadherin, Bax, and Bcl-2 in AGS cells. Data are presented as means ± SD (n = 3 independent experiments). **P* < 0.05, ***P* < 0.01, ****P* < 0.001.

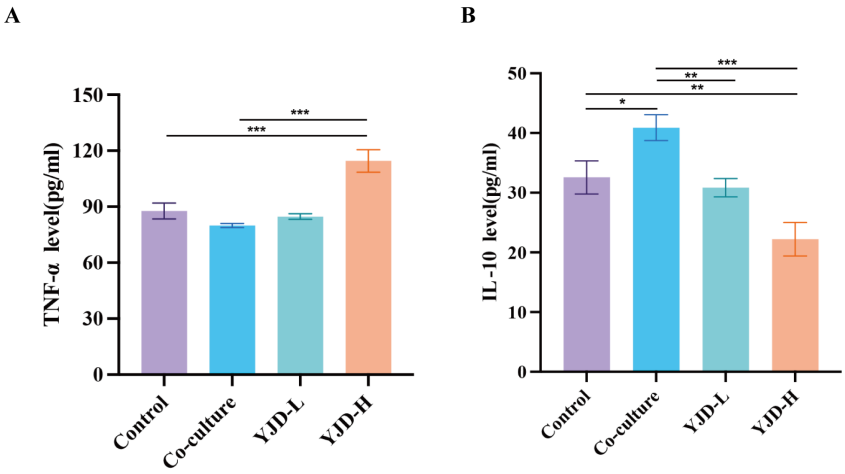


Fig. S3 Effect of YJD on TNF-α and IL-10 secretion by TAMs in MKN-45 co-culture systems. (A) TNF-α levels in the supernatant of TAMs. (B) IL-10 levels in the supernatant of TAMs. Data are expressed as mean ± SD (n = 3 independent experiments). **P* < 0.05, ***P* < 0.01, ****P* < 0.001.