

## Supporting Information

**Figure S1.** IR spectra of (A) magnetic nanoparticles, (B) thrombin and (C) thrombin immobilized magnetic nanoparticles

**Figure S2.** X-ray diffraction image of magnetic nanoparticles

**Figure S3.** Magnetic curves of magnetic nanoparticles(Black)and thrombin conjugated magnetic nanoparticles(Red)

**Figure S4.** Effect of the amount of Fe<sub>3</sub>O<sub>4</sub> nanoparticles added on the percentage of thrombin bound(80 µg thrombin added)

**Figure S5.** Optimizations of wash times and wash solvent

**Figure S6.** Optimization of other parameters including ionic strength, pH, incubation time and temperature

**Figure S7.** Specificity of the thrombin immobilized magnetic nanoparticles based approach

**Figure S8.** TIC chromatogram of (A) injection of *Erigeron breviscapus*, (B) fifth eluent after incubation with thrombin immobilized magnetic nanoparticles, (C) fifth eluent after incubation with denatured thrombin immobilized magnetic nanoparticles.

**Figure S9.** Chemical structures of constituents in crude extract and injection of *Erigeron breviscapus*

**Figure S10.** The MS<sup>2</sup> spectra of (A) peak 4 with *m/z* 353.0865 Da, (B) peak 6 with *m/z* 381.0861 Da, (C) peak 18 with *m/z* 515.1220 and (D) peak 21 with *m/z* 543.1119

**Figure S11.** The MS<sup>2</sup> spectra of (A)peak 13 with *m/z* 435.0953 Da, (B)peak 15 with *m/z* 463.0893 Da and (C)peak 16 with *m/z* 461.0748 Da

**Table S1.** Contents of the major compounds in extract and injection of *Erigeron breviscapus*

**Table S1. Contents of the major compounds in crude extract and injection of *Erigeron breviscapus***

No.	Compounds	Concentration(mg/mL)	
		Extract	Injection
1	Protocatechoic acid	0	0.082
2	1-Caffeoylquinic acid	0	0.465
3	Neochlorogenic acid	0.039	0.088
4	Chlorogenic acid	0	0.048
5	4-Caffeoylquinic acid	0.060	0.020
16	Scutellarin	0.147	0.400
18	4,5-Di-O-caffeoylquinic acid	0.394	0.550
19	3,4-Di-O-caffeoylquinic acid	0.123	0.176
20	3,5-Di-O-caffeoylquinic acid	0.190	0.084
21	Erigoster B	0.046	0

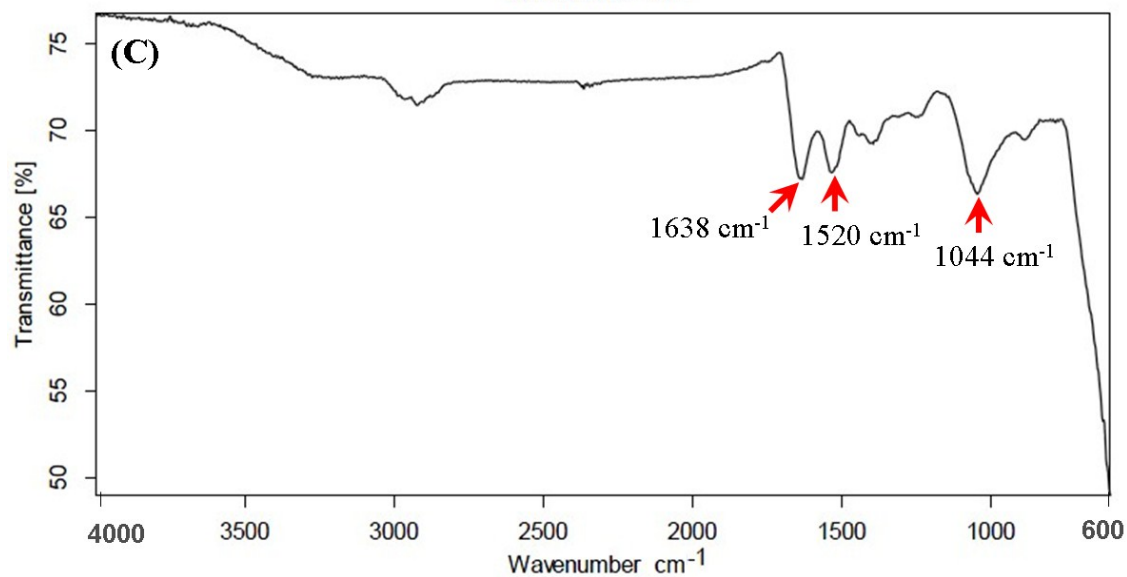
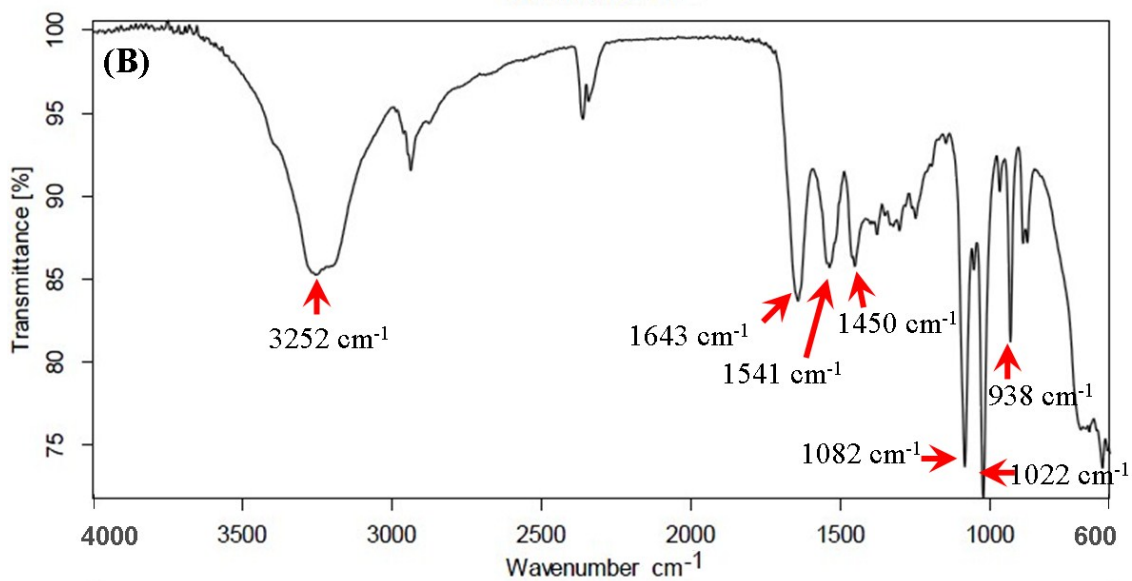
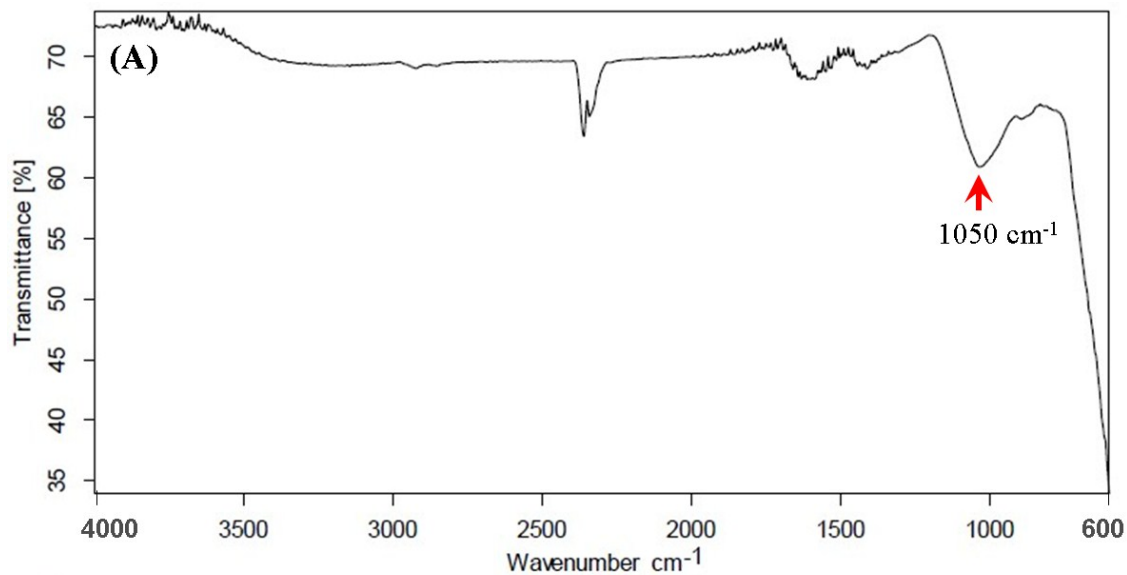


Figure S1

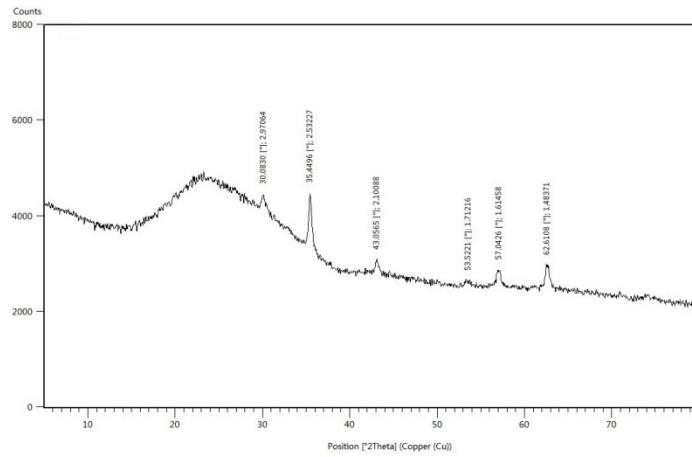


Figure S2

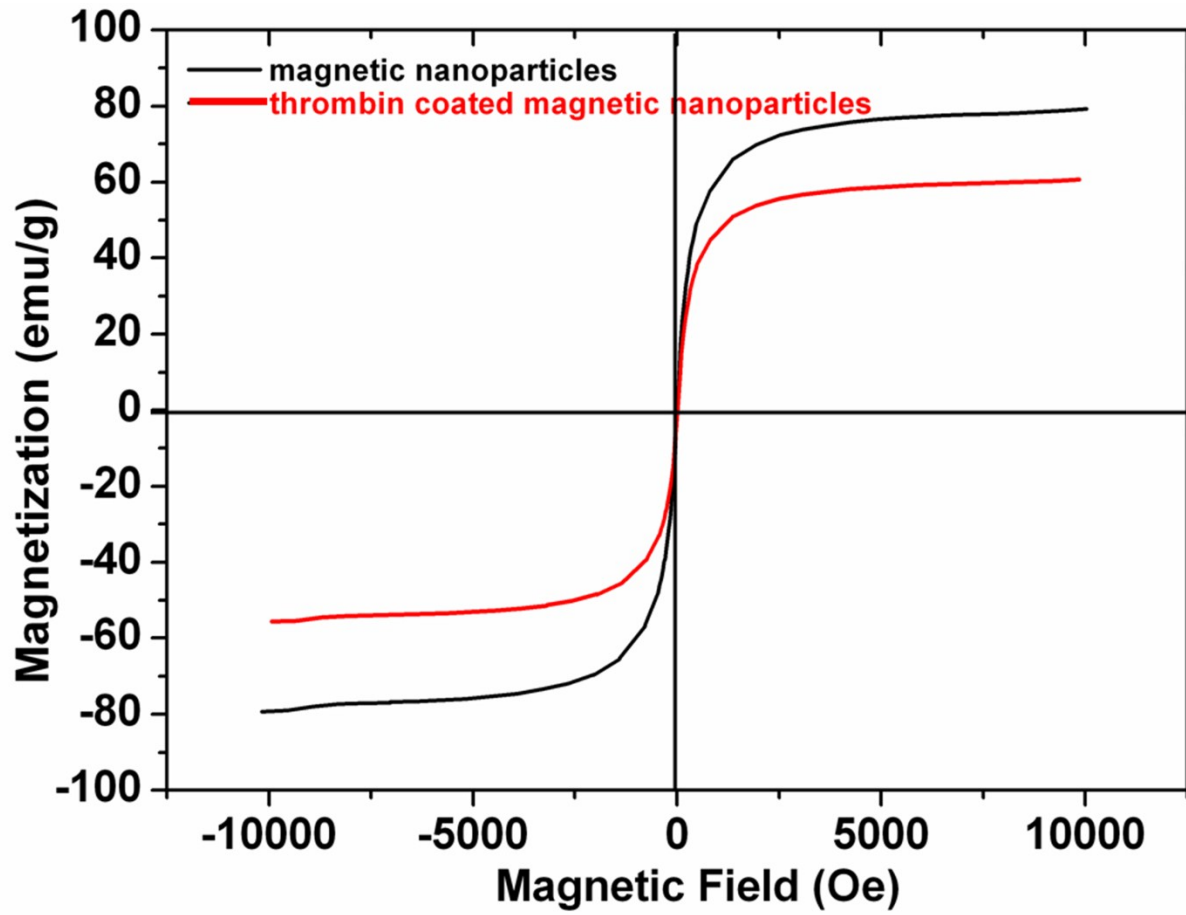


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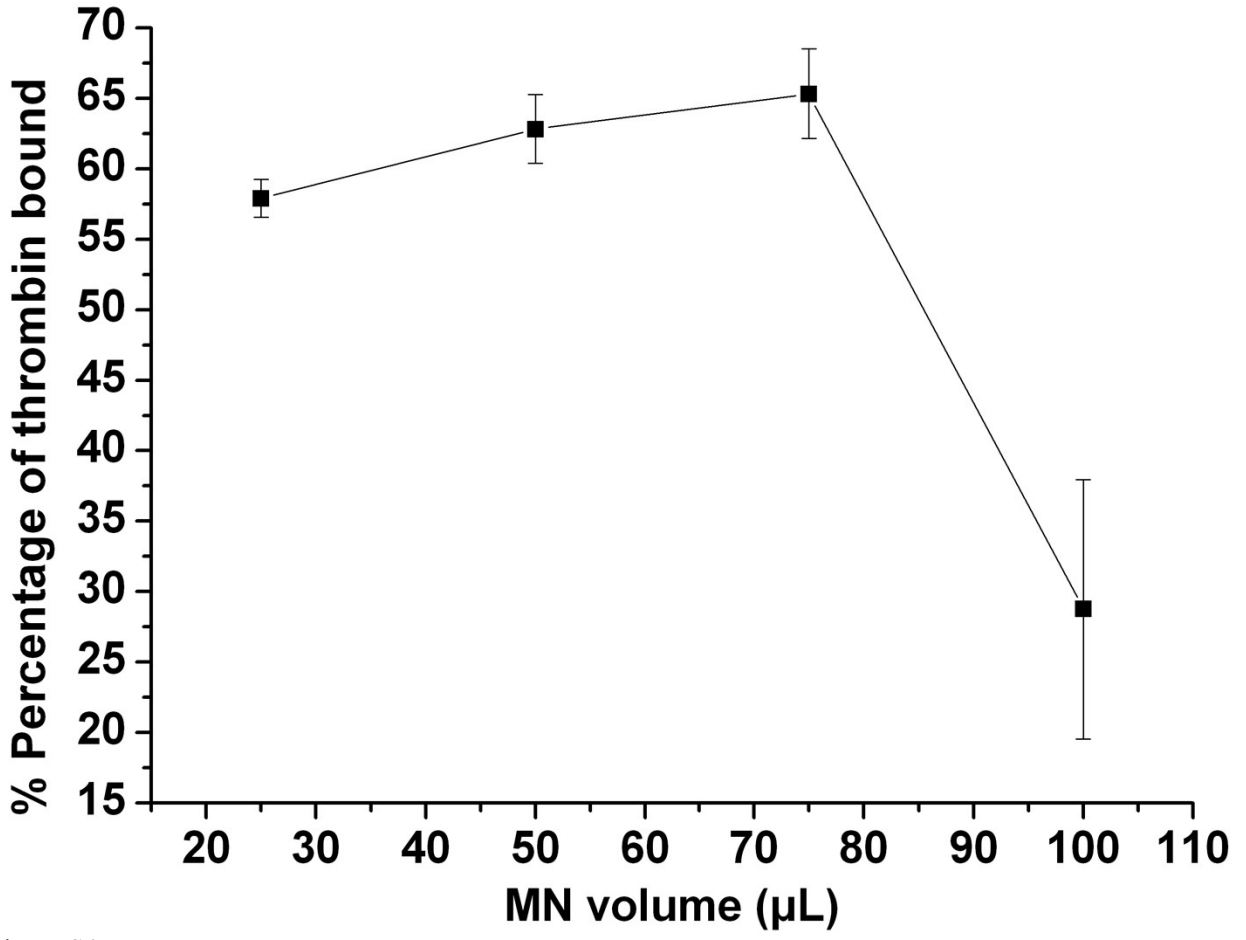


Figure S4

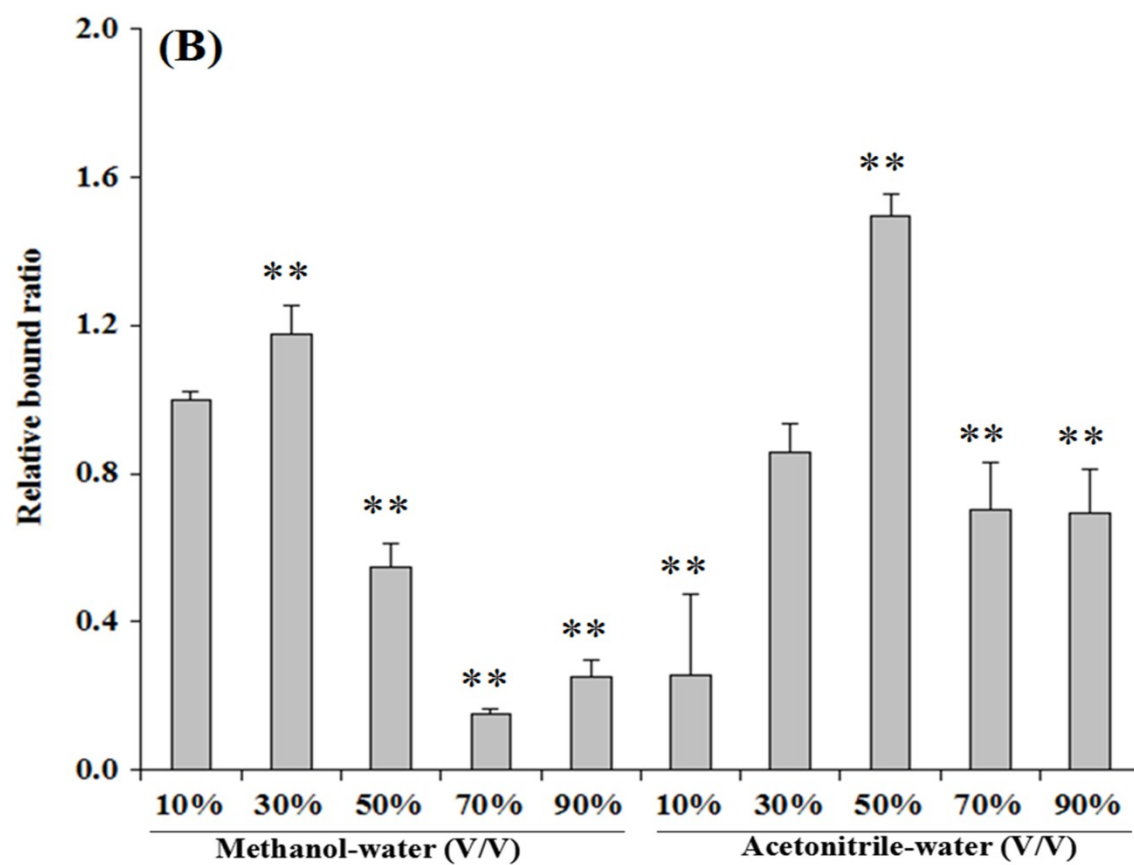
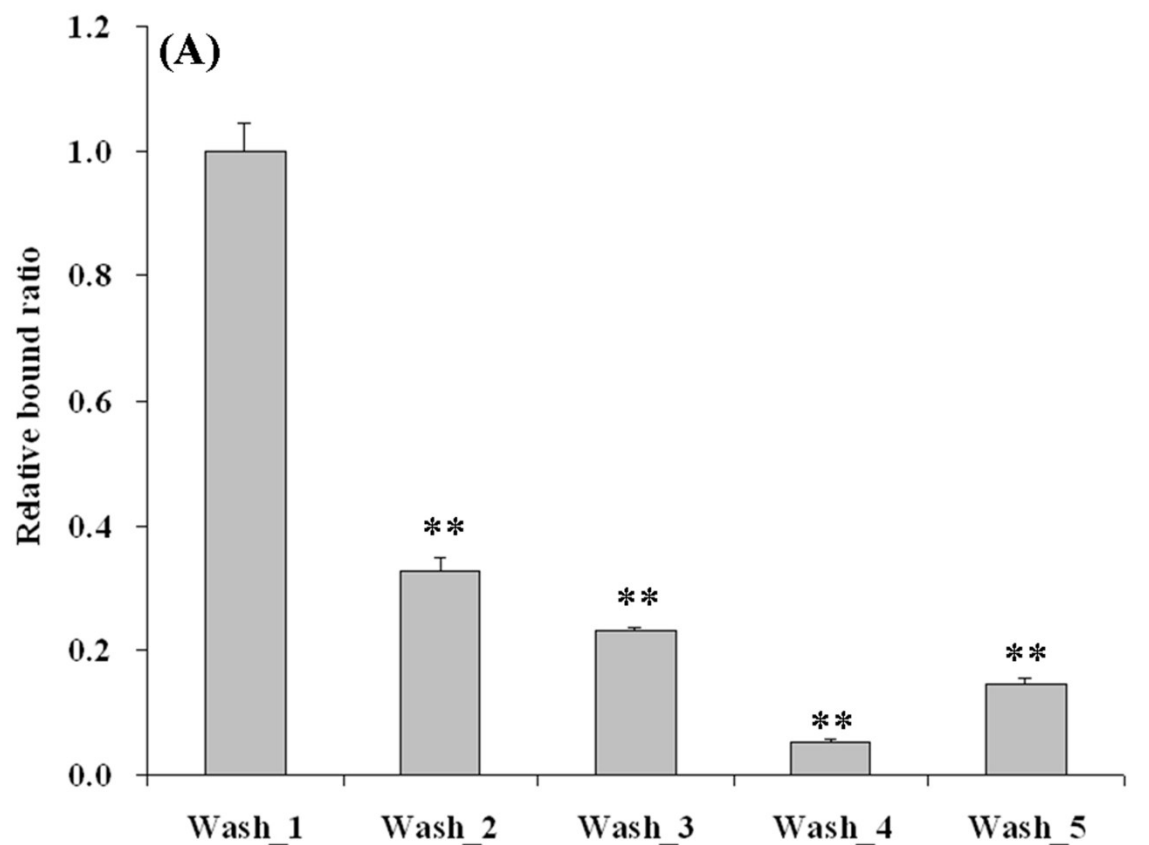


Figure S5

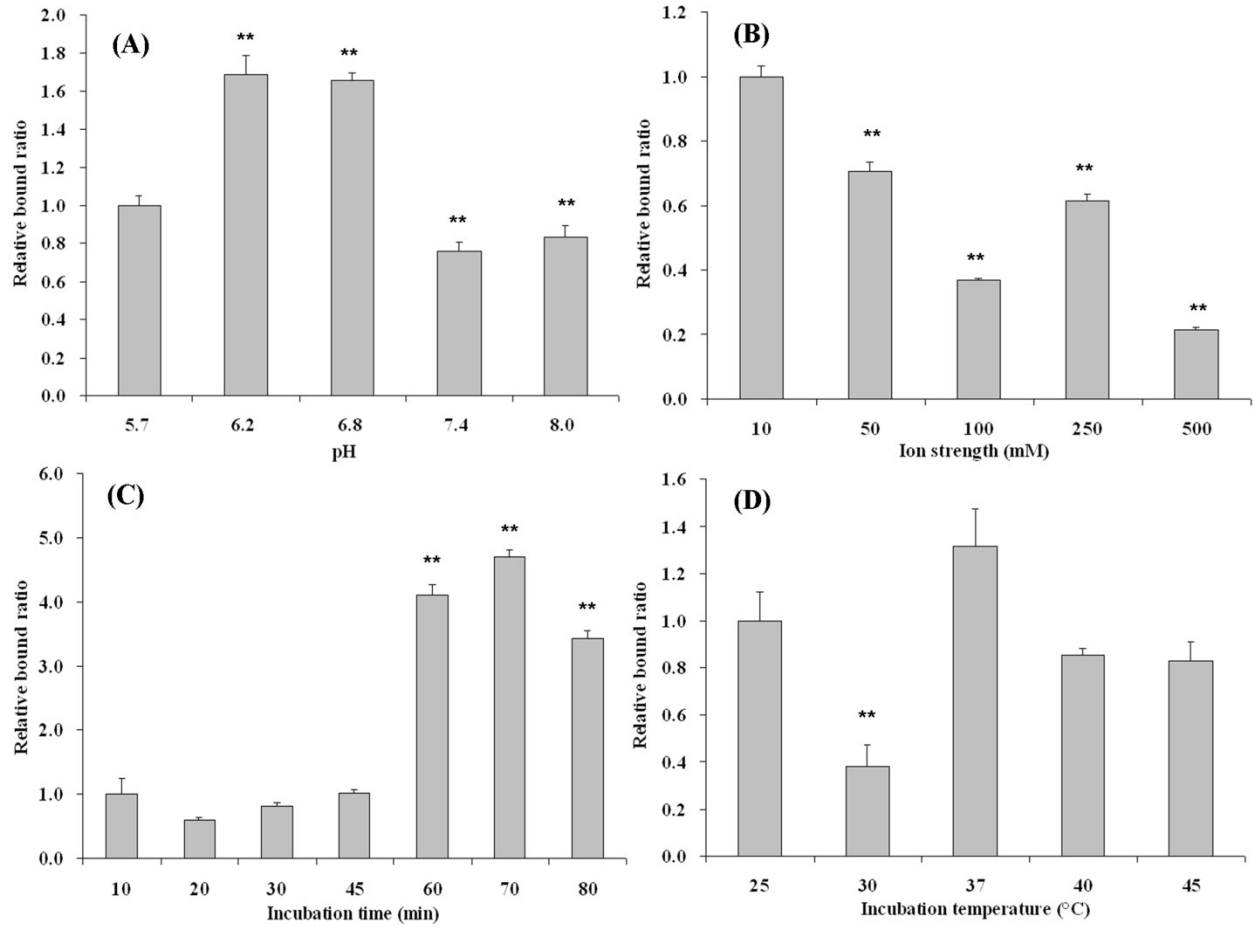


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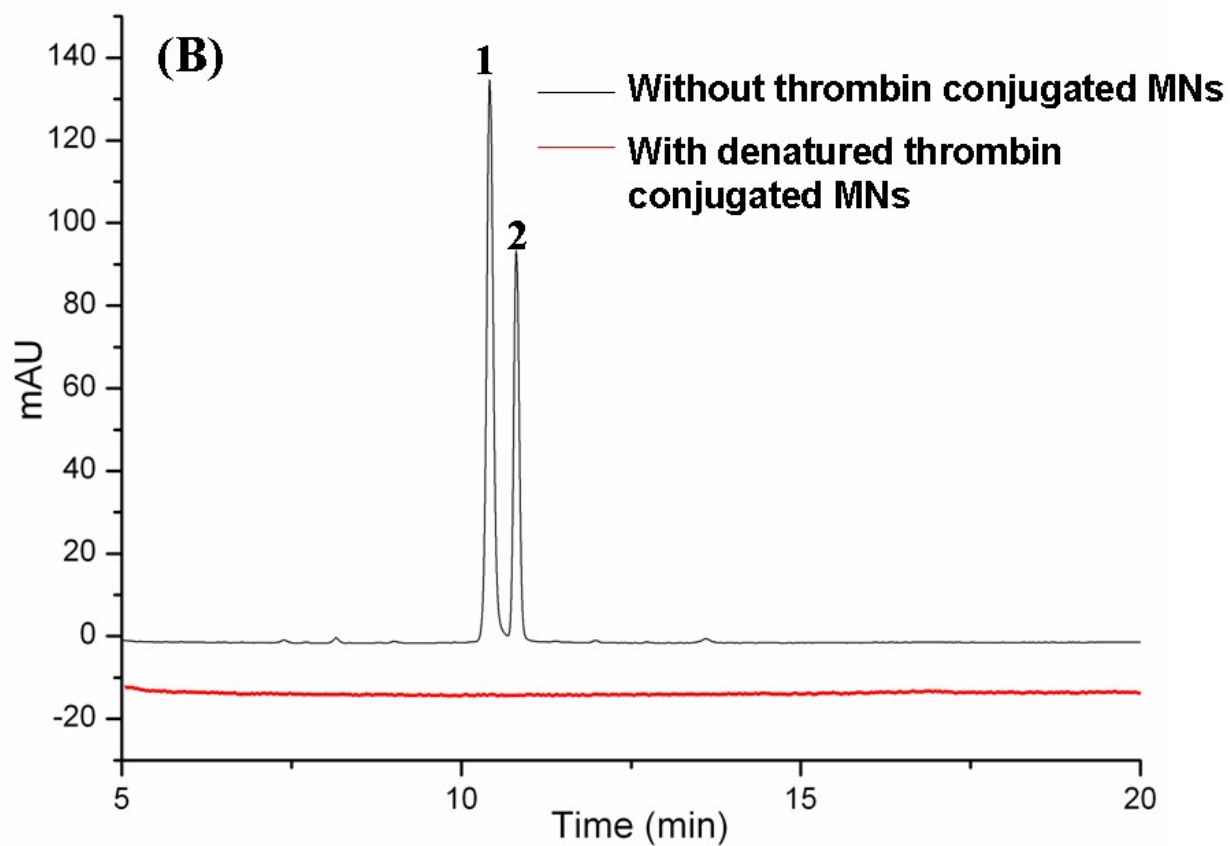
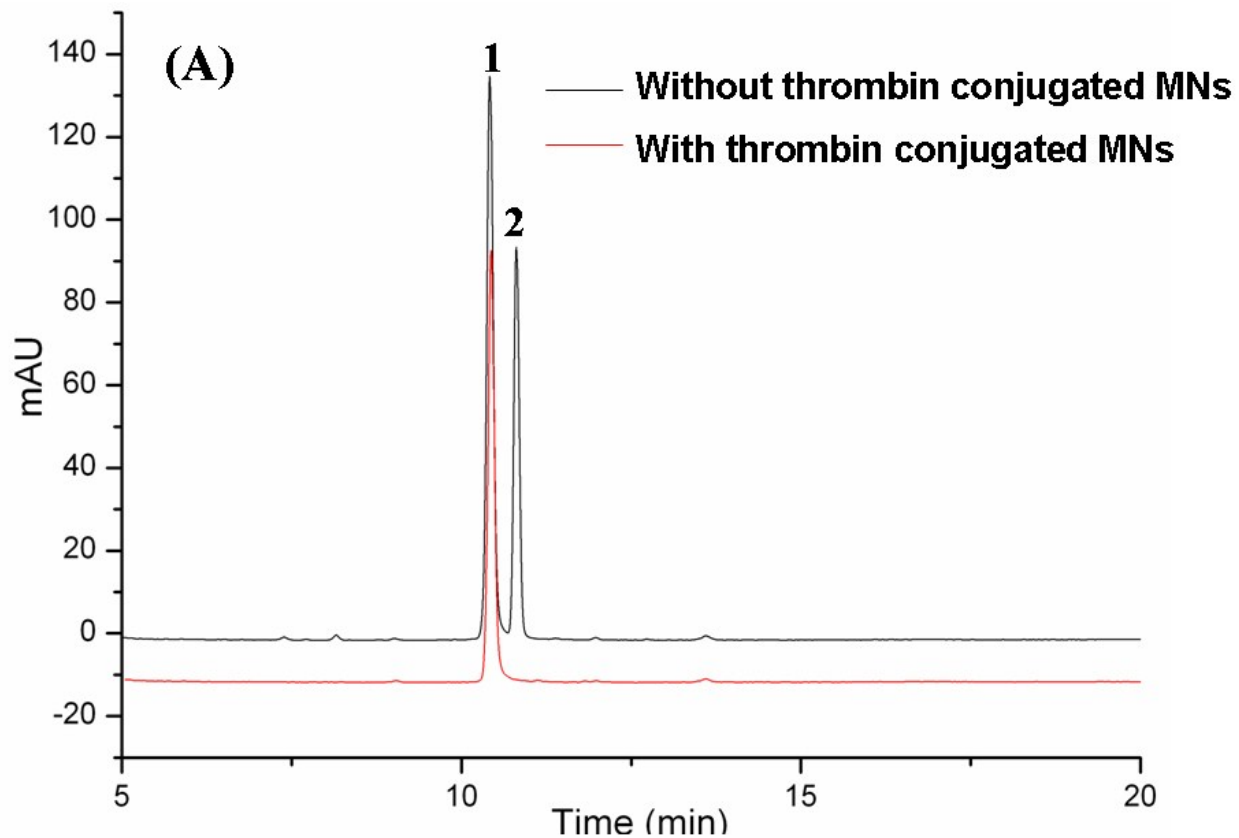


Figure S7



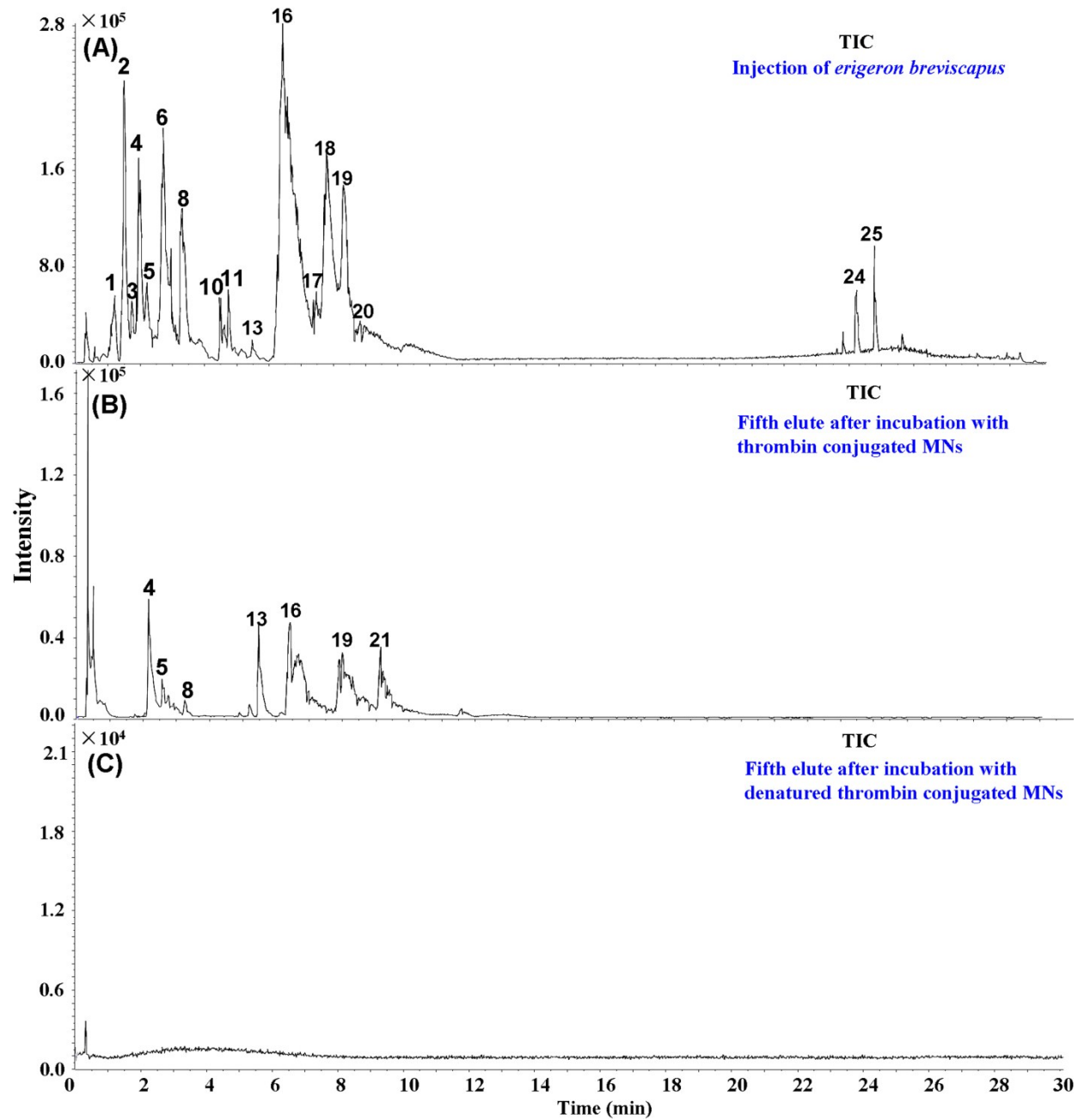


Figure S8

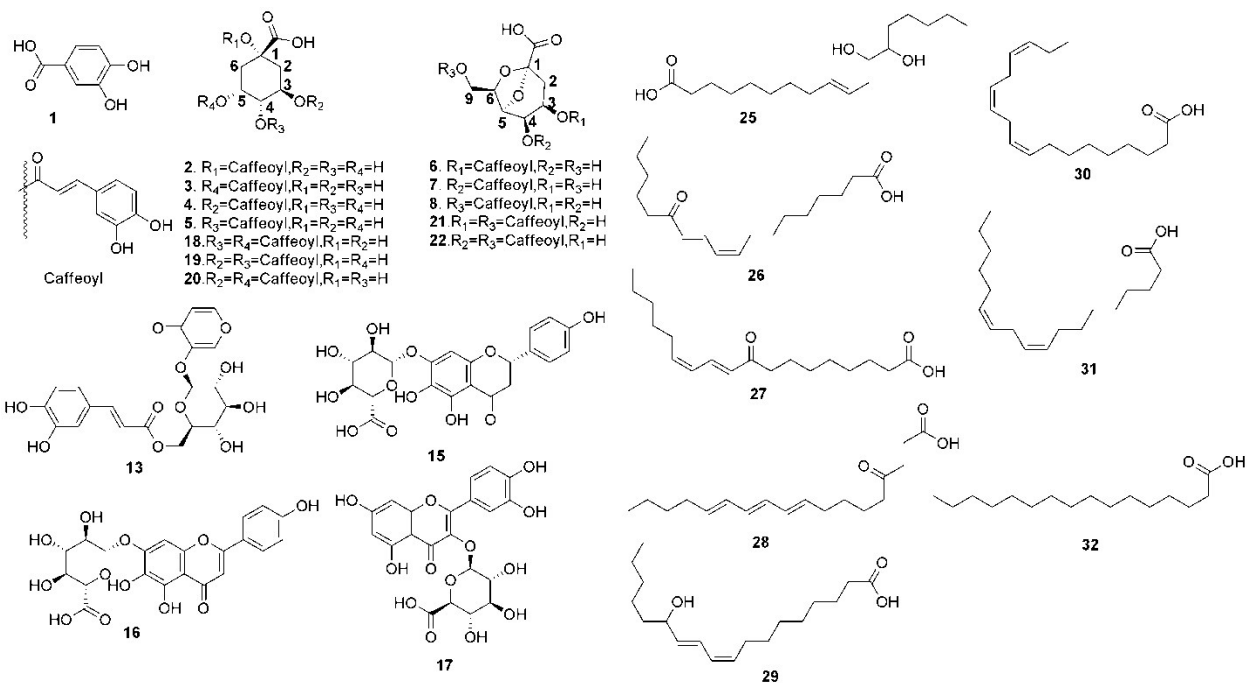


Figure S9

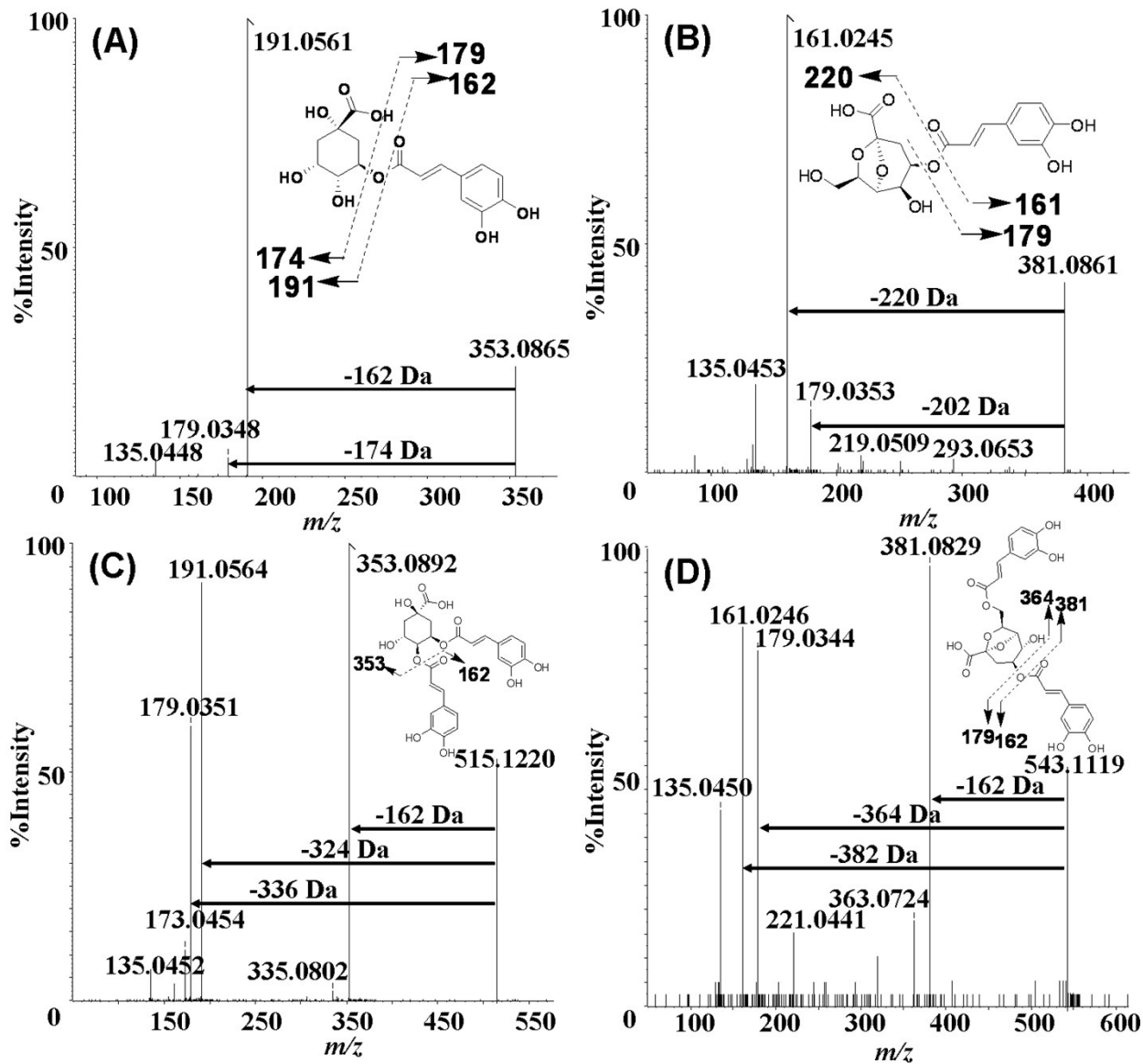


Figure S10

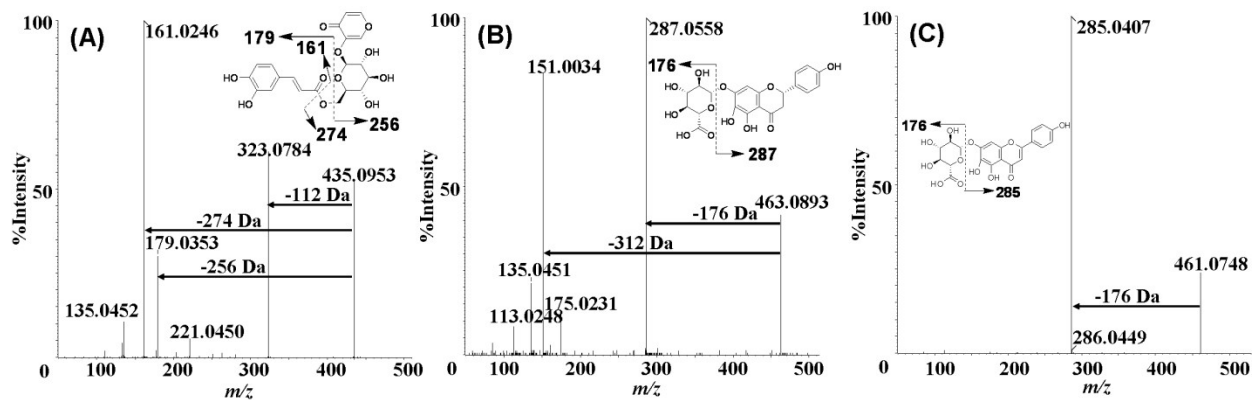


Figure S11