

**Subcritical Water Extraction of *Undaria pinnatifida*: Comparative Study of the  
Chemical Properties and Biological Activities across Different Parts**

Supplementary Data

### 3.5.2. Antihypertensive activity

#### Supplementary Information: Preparation of Working Solutions and Sample Solutions

##### Enzyme Working Solution

1. Preparation of Enzyme B Solution:
  - Add 2 mL of deionized water to the Enzyme B vial.
  - Mix thoroughly to dissolve completely.
2. Preparation of Enzyme Working Solution:
  - Add 1.5 mL of the prepared Enzyme B solution to the Enzyme A vial.
  - Mix thoroughly to prepare the Enzyme Working Solution.

##### Indicator Working Solution

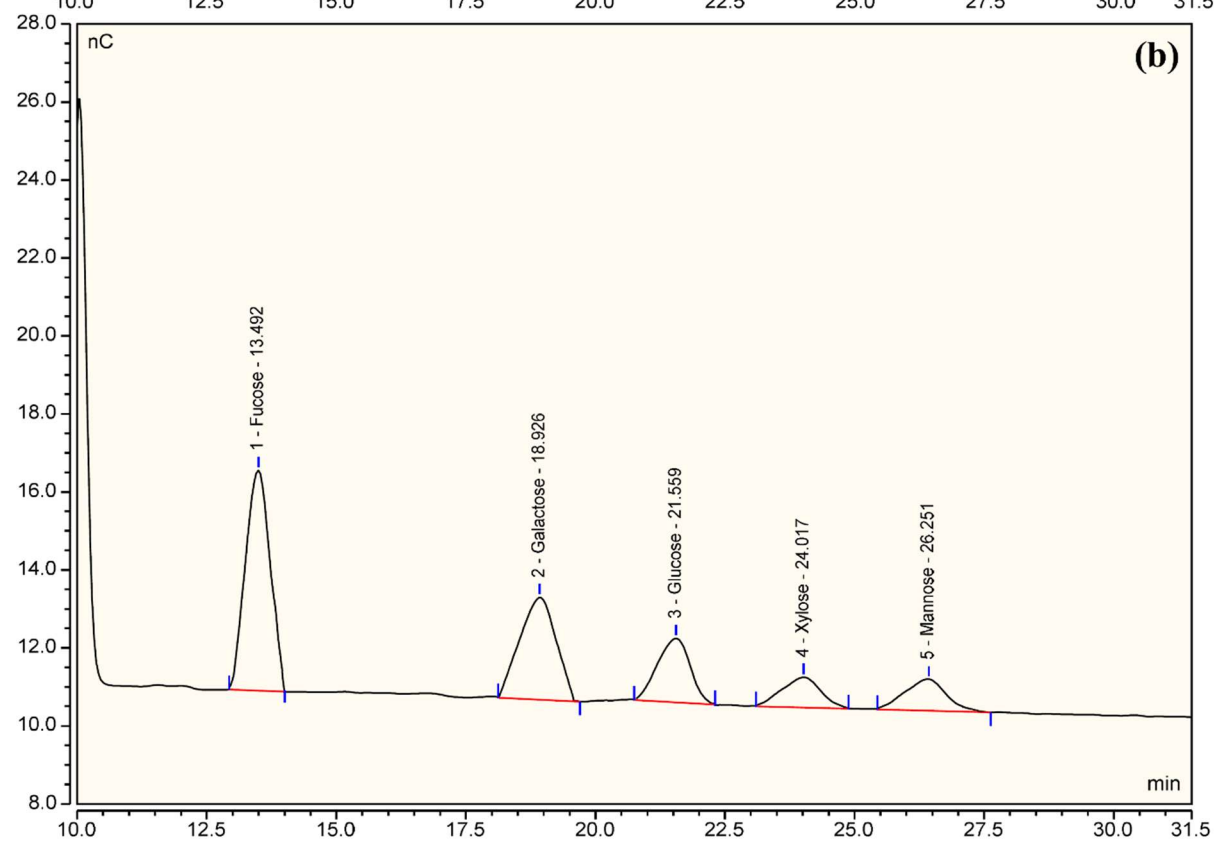
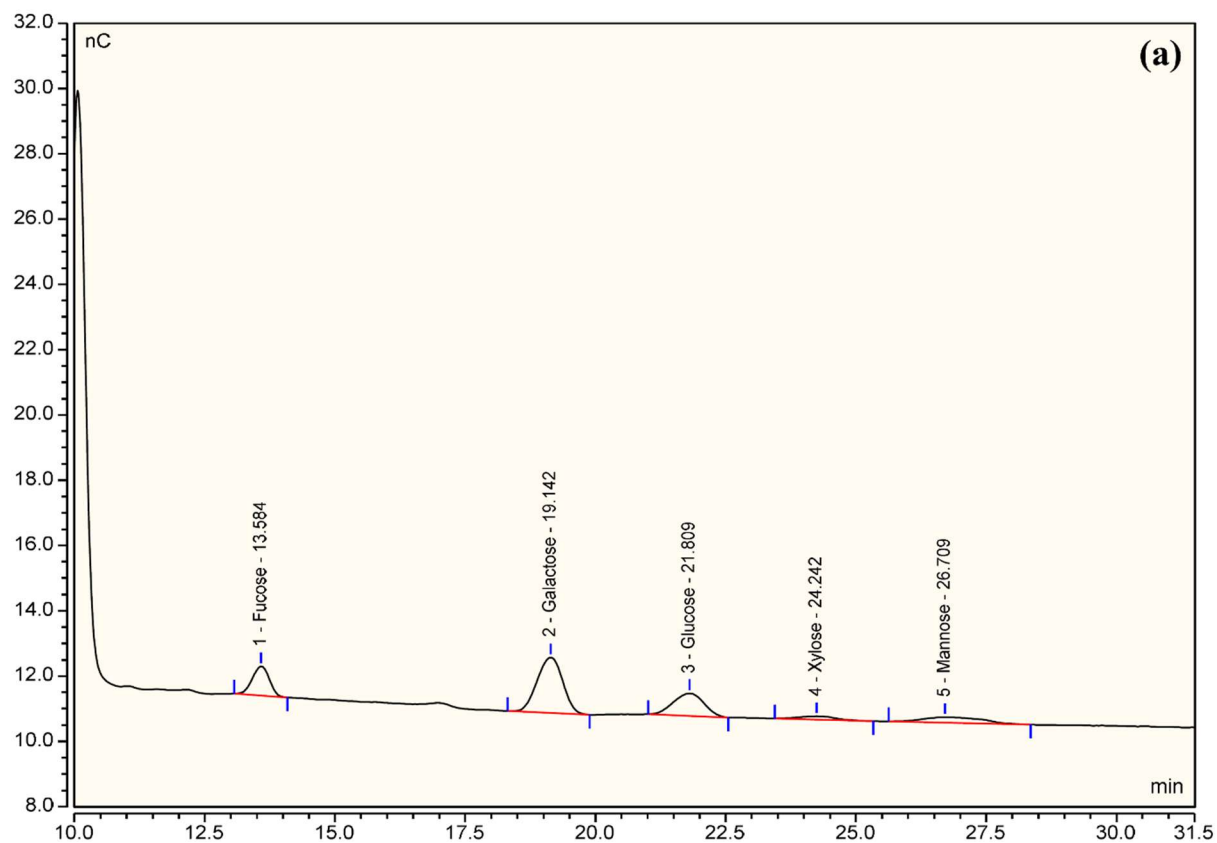
1. Preparation of Enzyme C Solution:
  - Add 3 mL of deionized water to the Enzyme C vial.
  - Mix thoroughly to dissolve completely.
2. Preparation of Coenzyme Solution:
  - Add 3 mL of deionized water to the Coenzyme vial.
  - Mix thoroughly to dissolve completely.
3. Preparation of Indicator Working Solution:
  - Combine 2.8 mL of the Enzyme C solution with 2.8 mL of the Coenzyme solution.
  - Mix thoroughly to prepare the Indicator Working Solution.

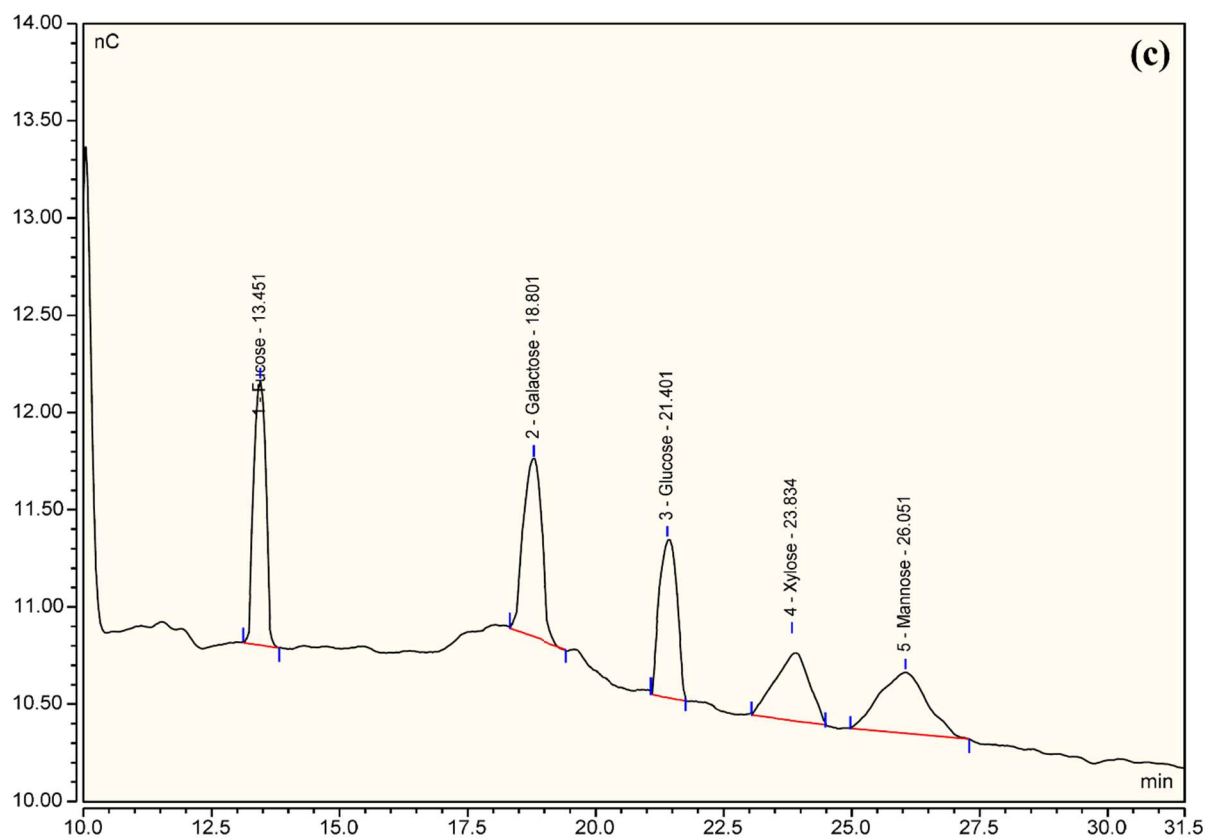
##### Indicator Working Solution

- Dilute the sample solution with deionized water according to the following ratios: 1 (undiluted), 1/5, 1/5<sup>2</sup>, 1/5<sup>3</sup>, 1/5<sup>4</sup>, 1/5<sup>5</sup>, and 1/5<sup>6</sup>.

**Table S1.** Addition Sequence & Amount of Each Solution

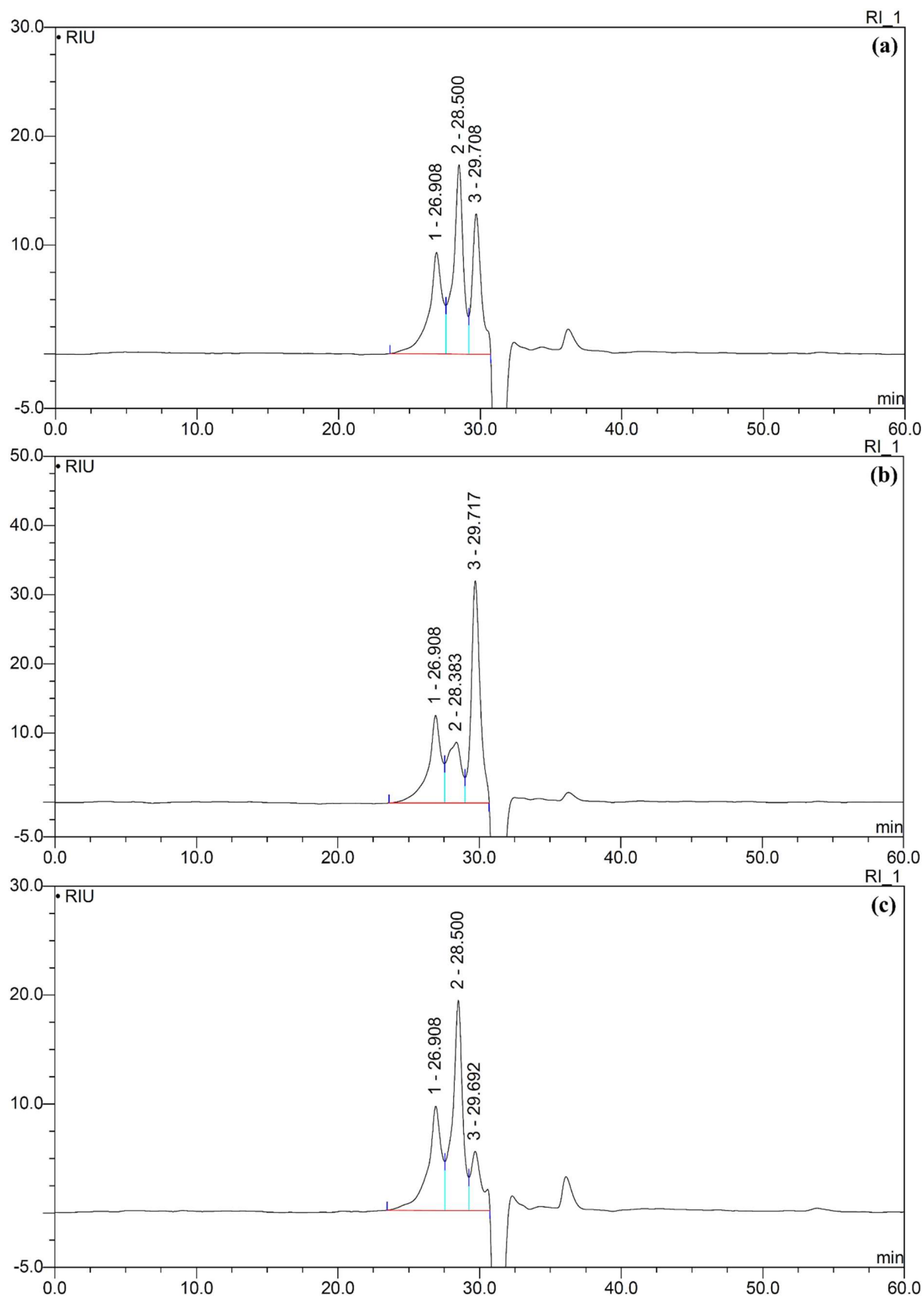
|                            | Sample | Blank1 | Blank2 |
|----------------------------|--------|--------|--------|
| Sample solution            | 20 µL  | -      | -      |
| Deionized water            | -      | 20 µL  | 40 µL  |
| Substrate buffer           | 20 µL  | 20 µL  | 20 µL  |
| Enzyme working solution    | 20 µL  | 20 µL  | 20 µL  |
| Indicator working solution | 20 µL  | 200 µL | 200 µL |





**Figure S1.** Monosaccharides chromatogram of USEs

(a) USE-B; (b) USE-S; (C) USE-R



**Figure S2. GPC Chromatogram of USEs**

(a) USE-B; (b) USE-S; (c) USE-R