

## Supplementary materials

**Table S1.** Yield and uronic acid content of GPS and purified fractions #.

	Yield (%)	Uronic acid (%)
GPS	3.18 *	45.9±1.5 <sup>a</sup>
GPS1	7.0 **	55.1±1.2 <sup>b</sup>
GPS1a	5.6 ***	22.3±0.5 <sup>ef</sup>
GPS1b	39.3 ***	77.6±1.2 <sup>g</sup>
GPS2	38.1 **	70.2±0.8 <sup>c</sup>
GPS2a	2.3 ***	21.0±0.4 <sup>e</sup>
GPS2b	38.4 ***	81.2±1.3 <sup>g</sup>
GPS3	15.2 **	47.9±0.7 <sup>a</sup>
GPS3a	19.5 ***	38.0±0.7 <sup>h</sup>
GPS3b	17.9 ***	61.1±2.0 <sup>i</sup>
GPS4	15.4 **	14.0±0.8 <sup>d</sup>
GPS4a	9.3 ***	24.8±1.9 <sup>f</sup>
GPS4b	36.9 ***	7.3±0.5 <sup>j</sup>

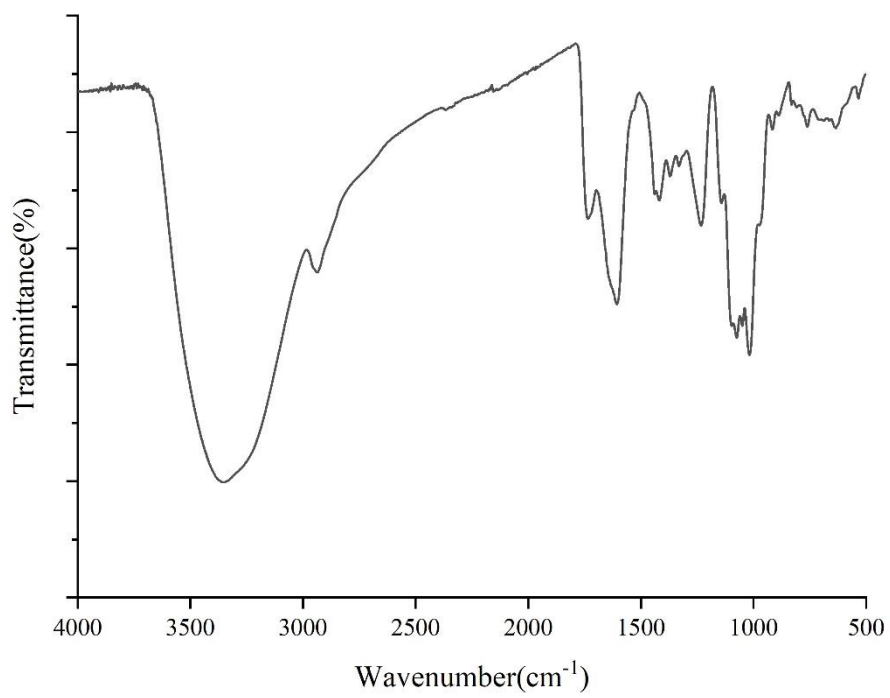
# Data are expressed as mean ± SD (n = 3) except the yields.

\*: calculated based on the dry weight of tea leaves.

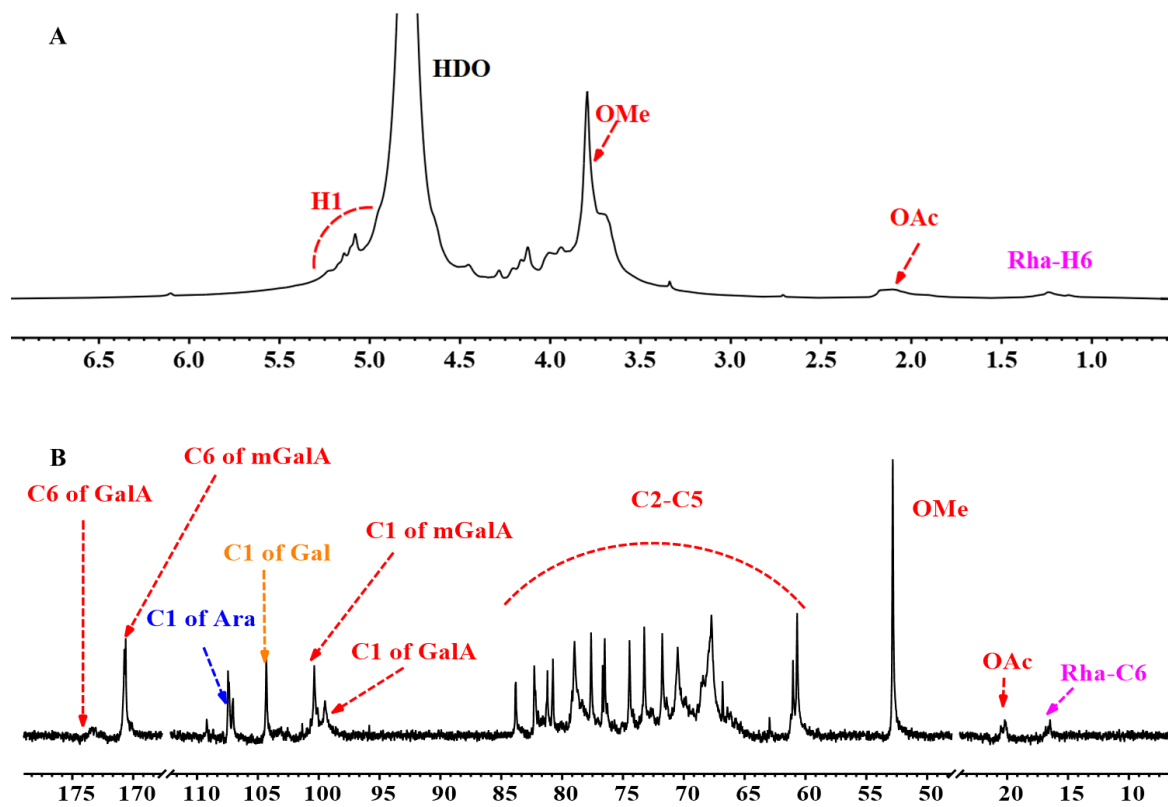
\*\*: calculated based on the weight of GPS.

\*\*\*: calculated based on the weight of DEAE purified fractions.

<sup>a-j</sup> Values followed by the different letter in the same column are significantly different (p < 0.05).



**Figure S1.** IR spectrum of GPS.



**Figure S2.** 1D NMR spectra of GPS. A. <sup>1</sup>H NMR spectrum; B. <sup>13</sup>C NMR spectrum.

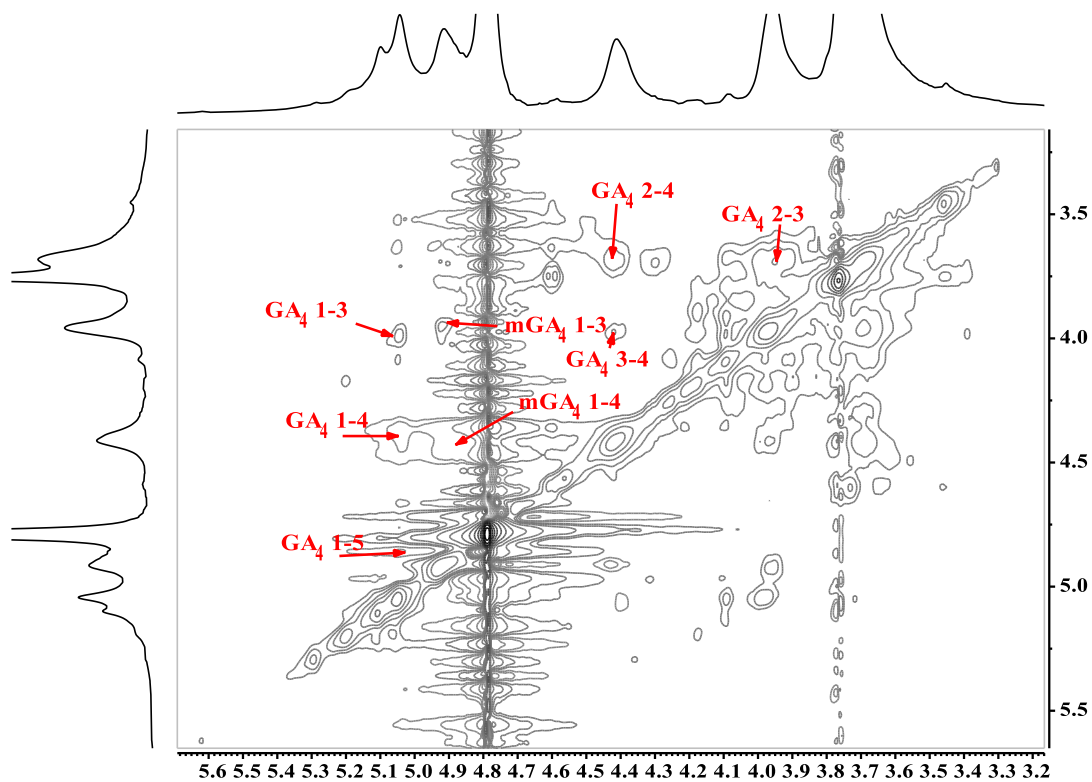


Figure S3. TOSCY spectrum of GPS2b.