

**Phenolic composition, antioxidant and enzyme inhibitory activities of  
the ethanol and water extracts of *Chenopodium botrys***

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**Running Title Header:** Phytochemistry and biological activity of *C. botrys*

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## **Supplementary Materials**

In **section S.1** were reported analytical characteristics of HPLC method applied for phenolics quantification.

In **section S.2** was given chromatographic profile of the standard phenolics.

In **section S.3** was given chromatographic profile of the ethanol extract

In **section S.4** was given chromatographic profile of the water extract

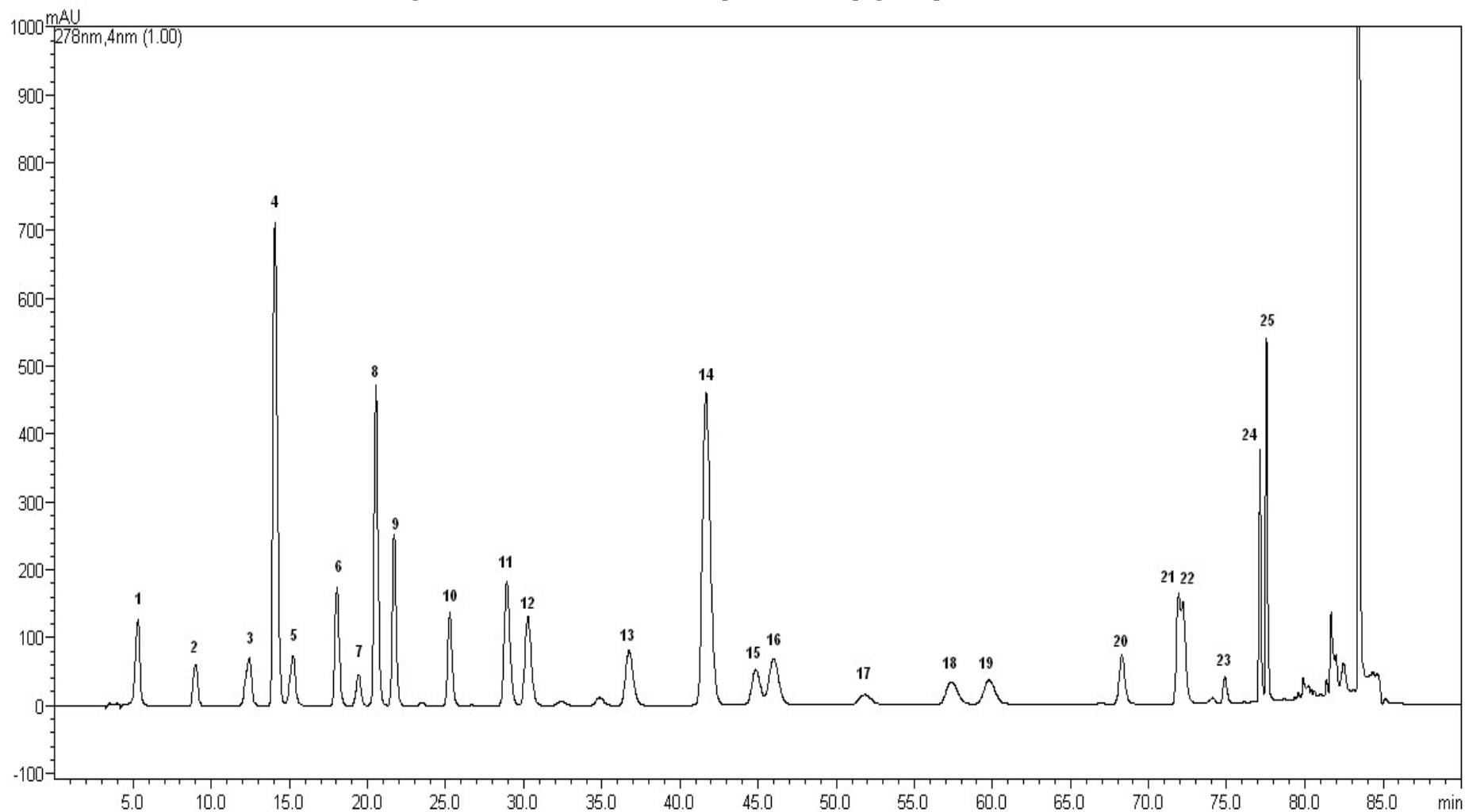
**Section S.1:** Analytical characteristics of the reported method.

| No | Retention time<br>(min) | Phenolics and flavonoids      | Analytical characteristics |                |                    |                     |
|----|-------------------------|-------------------------------|----------------------------|----------------|--------------------|---------------------|
|    |                         |                               | Linear range<br>(mg per L) | R <sup>2</sup> | LOD<br>(mg per L)* | LOQ<br>(mg per L)** |
| 1  | 5.2                     | Gallic acid                   | 0.20-25.0                  | 0.9993         | 0.075              | 0.227               |
| 2  | 8.7                     | Protocatechuic acid           | 0.20-25.0                  | 0.9991         | 0.086              | 0.260               |
| 3  | 12.3                    | (+)-Catechin                  | 0.90-113                   | 0.9988         | 0.172              | 0.522               |
| 4  | 13.5                    | <i>p</i> -Hydroxybenzoic acid | 0.20-25.0                  | 0.9994         | 0.007              | 0.020               |
| 5  | 15.1                    | Chlorogenic acid              | 0.35-45.0                  | 0.9988         | 0.080              | 0.241               |
| 6  | 17.6                    | Caffeic acid                  | 0.16-21.0                  | 0.9993         | 0.054              | 0.162               |
| 7  | 19.1                    | (-)-Epicatechin               | 0.50-66.0                  | 0.9990         | 0.170              | 0.514               |
| 8  | 19.9                    | Syringic acid                 | 0.05-12.0                  | 0.9995         | 0.030              | 0.090               |
| 9  | 20.8                    | Vanillin                      | 0.08-10.0                  | 0.9995         | 0.020              | 0.060               |
| 10 | 24.5                    | <i>p</i> -Coumaric acid       | 0.04-6.0                   | 0.9996         | 0.066              | 0.199               |
| 11 | 27.8                    | Ferulic acid                  | 0.12-17.0                  | 0.9993         | 0.004              | 0.011               |
| 12 | 29.2                    | Sinapic acid                  | 0.12-17.0                  | 0.9993         | 0.017              | 0.053               |
| 13 | 33.8                    | Benzoic acid                  | 0.85-55.0                  | 0.9998         | 0.111              | 0.335               |
| 14 | 39.4                    | <i>o</i> -Coumaric acid       | 0.24-32.0                  | 0.9988         | 0.023              | 0.069               |
| 15 | 44.1                    | Rutin                         | 0.40-56.0                  | 0.9989         | 1.113              | 3.373               |
| 16 | 45.8                    | Naringin                      | 0.24-32.0                  | 0.9988         | 0.023              | 0.069               |
| 17 | 49.7                    | Hesperidin                    | 0.43-55.0                  | 0.9992         | 1.080              | 3.280               |
| 18 | 54.9                    | Rosmarinic acid               | 0.02-7.0                   | 0.9998         | 0.148              | 0.447               |
| 19 | 57.3                    | Eriodictyol                   | 0.33-21.0                  | 0.9998         | 0.140              | 0.410               |
| 20 | 65.9                    | <i>trans</i> -Cinnamic acid   | 0.02-7.0                   | 0.9998         | 0.148              | 0.447               |
| 21 | 71.4                    | Quercetin                     | 0.40-55.0                  | 0.9999         | 0.013              | 0.040               |
| 22 | 72.1                    | Naringenin                    | 0.12-17.0                  | 0.9993         | 0.017              | 0.053               |
| 23 | 74.3                    | Luteolin                      | 0.13-17.0                  | 0.9999         | 0.020              | 0.060               |
| 24 | 76.8                    | Kaempferol                    | 0.05-15.0                  | 0.9996         | 0.021              | 0.062               |
| 25 | 77.2                    | Apigenin                      | 0.17-11.0                  | 0.9997         | 0.034              | 0.104               |

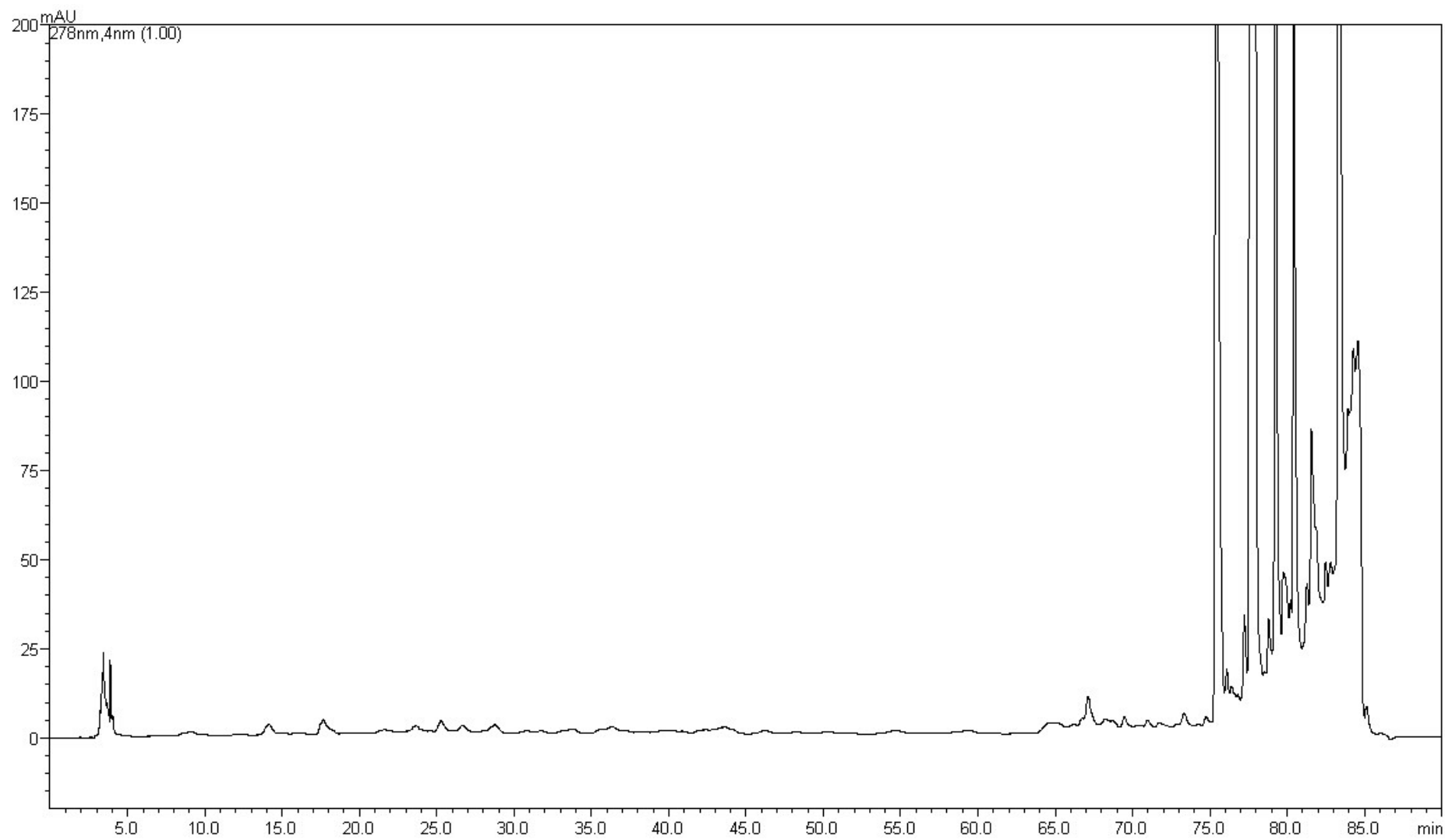
\*\* LOD, limit of detection

\*\*\* LOQ, limit of quantification

**Section S.2:** Chromatographic profile of chemical standards [1. Gallic acid, 2. Protocatechuic acid, 3. (+)-Catechin, 4. *p*-Hydroxybenzoic acid, 5. Chlorogenic acid, 6. Caffeic acid, 7. (-)-Epicatechin, 8. Syringic acid, 9. Vanillin, 10. *p*-Coumaric acid, 11. Ferulic acid, 12. Sinapinic acid, 13. Benzoic acid, 14. *o*-Coumaric acid, 15. Rutin, 16. Naringin, 17. Hesperidin, 18. Rosmarinic acid, 19. Eriodictyol, 20. *trans*-Cinnamic acid, 21. Quercetin, 22. Naringenin, 23. Luteolin, 24. Kaempferol, 25. Apigenin]



**Section S.3:** HPLC chromatogram of the ethanol extract of *C. botrys*



**Section S.4:** HPLC chromatogram of the water extract of *C. botrys*

