

### Supplementary information

## Antifungal Activity of Soft Tissue Extract from the Garden Snail *Helix Aspersa* (Gastropoda, Mollusca)

Hoda H. Abd-El Azeem <sup>1,\*</sup>, Gamalat Y. Osman <sup>1</sup>, Hesham R. El-Seedi <sup>2,3,4,5,\*</sup>, Ahmed M Fallatah <sup>6</sup>, Shaden A. M. Khalifa <sup>7</sup> and Mohamed M. Gharib <sup>8</sup>

- <sup>1</sup> Department of Zoology, Faculty of Sciences, Menoufia University, 32512 Shebin El-Kom, Egypt; hodaelsheikh483@gmail.com (H.H.A.-E.A); and dr.gyosman@yahoo.com (G.Y.O)
- <sup>2</sup> Pharmacognosy Group, Department of Pharmaceutical Biosciences, Biomedical Centre, Uppsala University, Uppsala, Box 591, SE 751 24, Sweden; hesham.el-seedi@farmbio.uu.se
- <sup>3</sup> International Research Center for Food Nutrition and Safety, Jiangsu University, Zhenjiang 212013, China
- <sup>4</sup> International Joint Research Laboratory of Intelligent Agriculture and Agri-products Processing (Jiangsu University), Jiangsu Education Department, China
- <sup>5</sup> Department of Chemistry, Faculty of Science, Menoufia University, 32512 Shebin El-Kom, Egypt
- <sup>6</sup> Department of Chemistry, College of Science, Taif University, P.O. Box 11099, Taif 21944, Saudi Arabia; a.fallatah@tu.edu.sa
- <sup>7</sup> Department of Molecular Biosciences, Stockholm University, the Wenner-Gren Institute, SE-106 91 Stockholm, Sweden; shaden.khalifa.2014@gmail.com
- <sup>8</sup> Department of Botany, Faculty of Sciences, Menoufia University, 32512 Shebin El-Kom, Egypt; gharieb2000@yahoo.com

\*Correspondence: hodaelsheikh483@gmail.com (H.H.A.-E.A); .hesham.el-seedi@farmbio.uu.se (H.R.E.-S)

**Citation:** Abd-El Azeem, H.H.; Osman, G.Y.; El-Seedi, H.R.; Fallatah, A.M.; Khalifa, S.A.M.; Gharib, M.M. Antifungal Activity of Soft Tissue Extract from the Garden Snail *Helix Aspersa* (Gastropoda, Mollusca). *Molecules* **2022**, *27*, 3170. <https://doi.org/10.3390/molecules27103170>

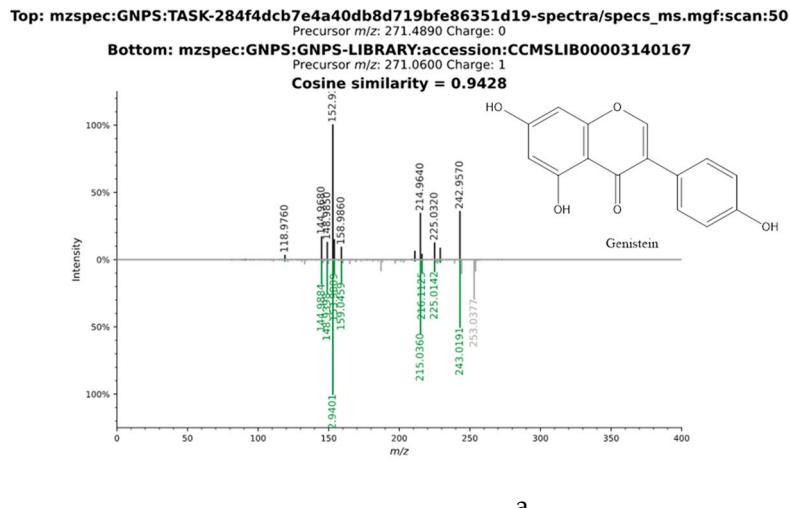
Academic Editor:  
Jolanta Mierzejewska

Received: 12 April 2022  
Accepted: 11 May 2022  
Published: 16 May 2022

**Publisher's Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



**Copyright:** © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).



a

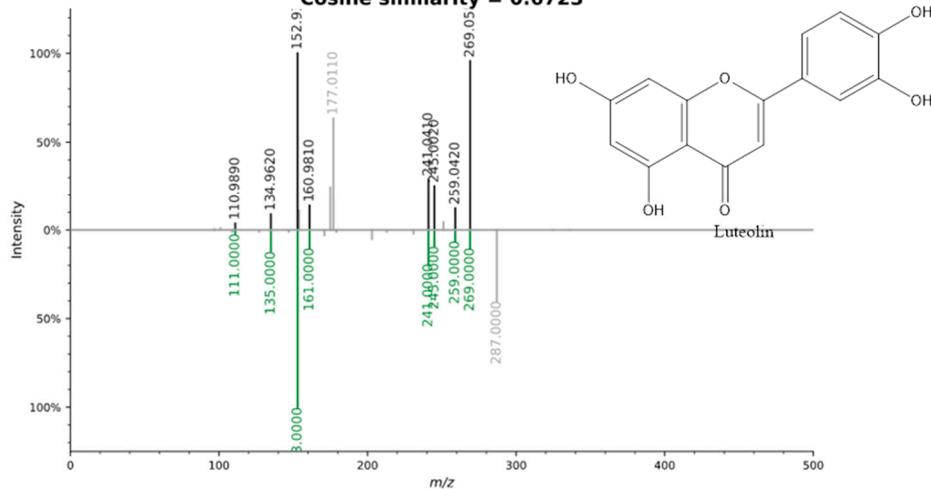
**Top:** mzspec:GNPS:TASK-284f4dcb7e4a40db8d719bfe86351d19-spectra/specs\_ms.mgf:scan:61

Precursor  $m/z$ : 287.4350 Charge: 0

**Bottom:** mzspec:GNPS:GNPS-LIBRARY:accession:CCMSLIB00000212005

Precursor  $m/z$ : 287.0000 Charge: 1

**Cosine similarity = 0.6723**



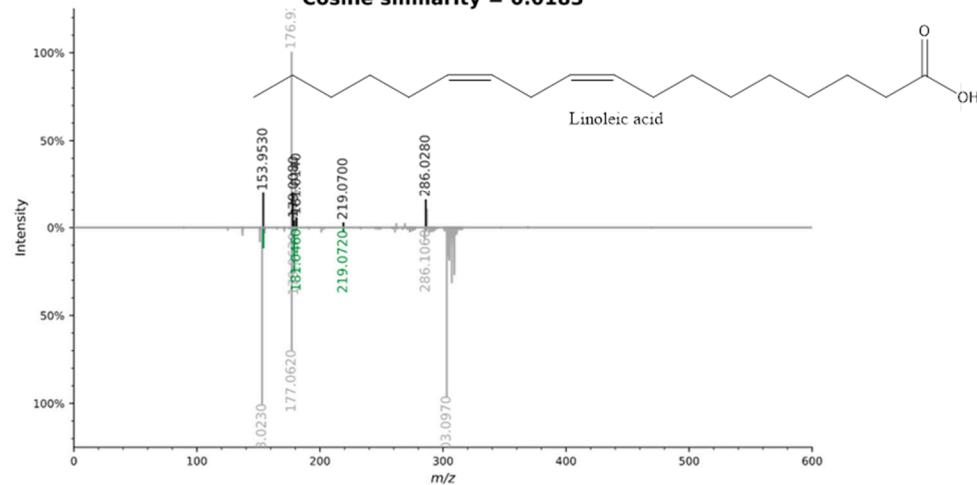
**Top:** mzspec:GNPS:TASK-284f4dcb7e4a40db8d719bfe86351d19-spectra/specs\_ms.mgf:scan:72

Precursor  $m/z$ : 304.5700 Charge: 0

**Bottom:** mzspec:GNPS:GNPS-LIBRARY:accession:CCMSLIB00006578538

Precursor  $m/z$ : 303.2300 Charge: 1

**Cosine similarity = 0.0183**



b

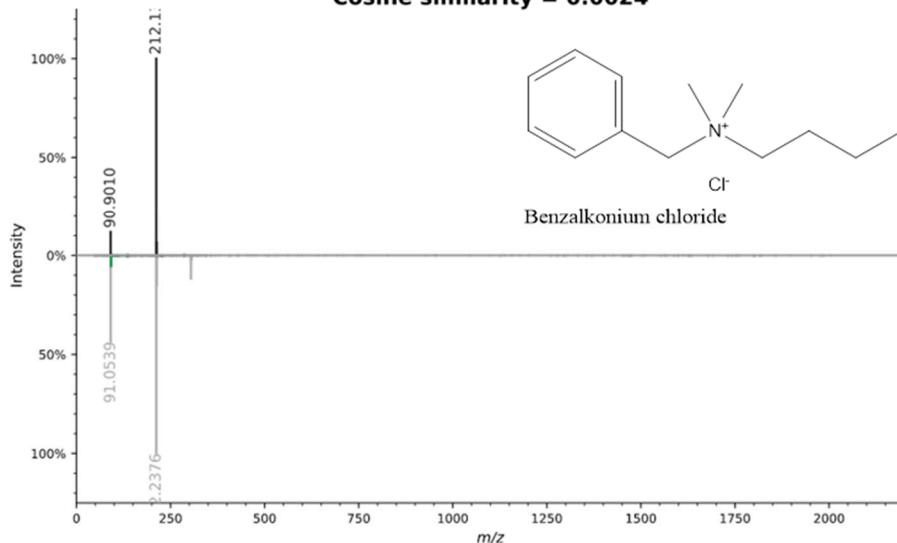
**Top: mzspec:GNPS:TASK-284f4dcb7e4a40db8d719bfe86351d19-spectra/specs\_ms.mgf:scan:73**

Precursor  $m/z$ : 304.7230 Charge: 0

**Bottom: mzspec:GNPS:GNPS-LIBRARY:accession:CCMSLIB00000531495**

Precursor  $m/z$ : 304.2900 Charge: 1

**Cosine similarity = 0.0024**



C

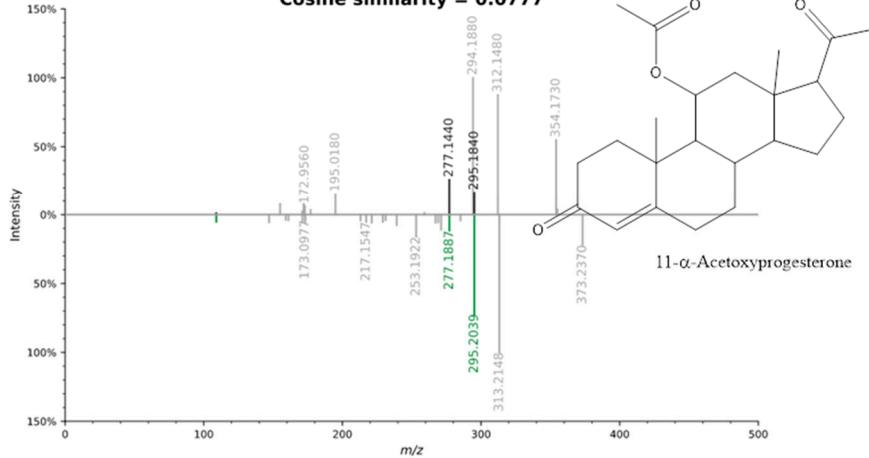
**Top: mzspec:GNPS:TASK-284f4dcb7e4a40db8d719bfe86351d19-spectra/specs\_ms.mgf:scan:117**

Precursor  $m/z$ : 372.5080 Charge: 0

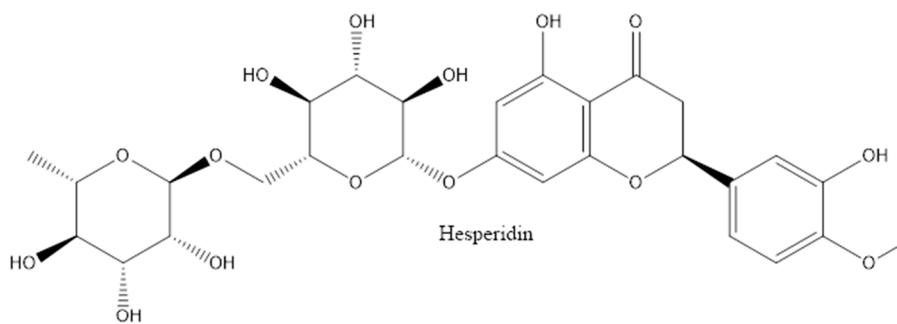
**Bottom: mzspec:GNPS:GNPS-LIBRARY:accession:CCMSLIB00000205383**

Precursor  $m/z$ : 373.2370 Charge: 1

**Cosine similarity = 0.0777**



d



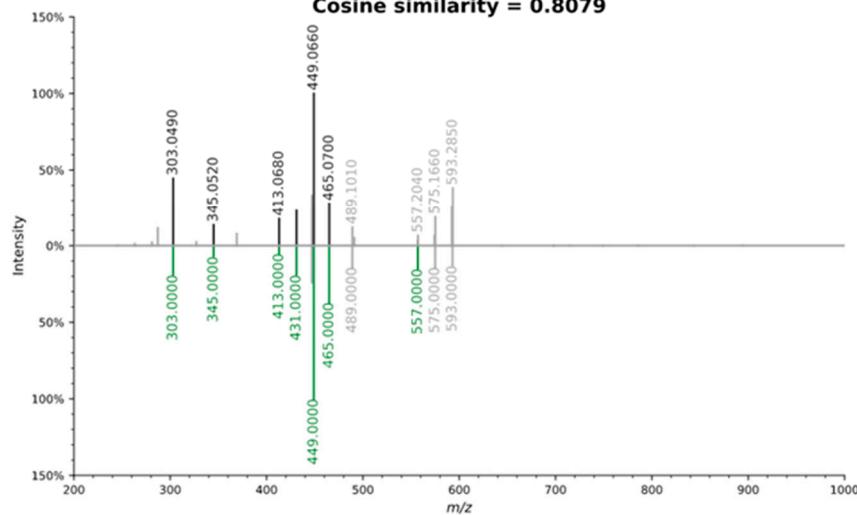
**Top:** mzspec:GNPS:TASK-284f4dcb7e4a40db8d719bfe86351d19-spectra/specs\_ms.mgf:scan:265

Precursor  $m/z$ : 611.2540 Charge: 0

**Bottom:** mzspec:GNPS:LIBRARY:accession:CCMSLIB00000208772

Precursor  $m/z$ : 611.0000 Charge: 1

**Cosine similarity = 0.8079**



e

**Figure S1.** The identified metabolites' parent masses and fragments of the methanol and acetone viscera extracts of the *Helix aspersa* from the raw mass spectrum; (a) genistein; (b) luteolin; (c) linoleic acid; (d) 11-alpha-acetoxyprogesterone and (e) hesperidin