

Author's Accepted Manuscript

Biochemical evaluation of selected grape varieties (*Vitis vinifera* L.) grown in Jordan and *in vitro* evaluation of grape seed extract on human prostate cancer cells

Tamam El-Elimat, Bara`a A. Jarwan, Aref Zayed, Ahmed Alhusban, Maha Syouf



PII: S2212-4292(17)30776-9
DOI: <https://doi.org/10.1016/j.fbio.2018.06.007>
Reference: FBIO309

To appear in: *Food Bioscience*

Received date: 20 October 2017
Revised date: 8 June 2018
Accepted date: 15 June 2018

Cite this article as: Tamam El-Elimat, Bara`a A. Jarwan, Aref Zayed, Ahmed Alhusban and Maha Syouf, Biochemical evaluation of selected grape varieties (*Vitis vinifera* L.) grown in Jordan and *in vitro* evaluation of grape seed extract on human prostate cancer cells, *Food Bioscience*, <https://doi.org/10.1016/j.fbio.2018.06.007>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Biochemical evaluation of selected grape varieties (*Vitis vinifera* L.) grown in Jordan and *in vitro* evaluation of grape seed extract on human prostate cancer cells

Tamam El-Elimat^{a*}, Bara`a A. Jarwan^a, Aref Zayed^a, Ahmed Alhusban^b, Maha Syouf^c

^a*Department of Medicinal Chemistry and Pharmacognosy, Faculty of Pharmacy, Jordan University of Science and Technology, P.O. Box 3030, Irbid 22110, Jordan*

^b*Department of Clinical Pharmacy, Faculty of Pharmacy, Jordan University of Science and Technology, P.O. Box 3030, Irbid 22110, Jordan*

^c*National Center for Agricultural Research and Extension, P.O. Box 639, Baqa' 19381, Jordan*

*Corresponding author. Tel.: +962 2 7201000, ext.: 23541; fax: +962 2 7201075. telimat@just.edu.jo (T. El-Elimat).

ABSTRACT

A chemical and biological approach was used for quality assessment of 16 different eating grape varieties collected in Jordan. A validated LC-ESI-MS/MS method was used for quantitative analysis of resveratrol in grape skin and grape seed extracts. Grape skin extracts showed higher resveratrol content than that of seeds. The antioxidant activity and total phenolic content of seed, skin, and whole berry extracts of the grape varieties were evaluated using the DPPH radical scavenging assay and Folin–Ciocalteu colorimetric method, respectively. Seed extracts showed the highest total phenolic content and antioxidant activity. The *in vitro* effects of Golden Scatt grape seed extract on human prostate cancer cell migration and colony-genic potential were assayed. Golden Scatt seed extract modulated the colony formation potential and inhibited the migratory potential of prostate cancer cells in a dose-dependent manner.

Download English Version:

<https://daneshyari.com/en/article/6488782>

Download Persian Version:

<https://daneshyari.com/article/6488782>

[Daneshyari.com](https://daneshyari.com)