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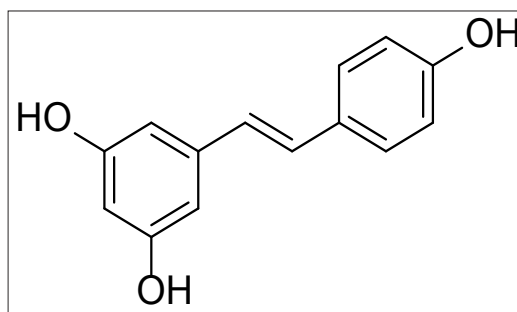
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Resveratrol as an anticancer agent: Resveratrol versus classical medicine

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Many natural products present in our diet, including flavonoids, can prevent the progression of cancer and other diseases. In addition, utilization of compounds extracted from medicinal plants to fight diseases and illnesses such as cancer, diabetes, cardiovascular disorders and oxidative stress is gaining popularity due to their lesser side effects and cost. Advances in pharmacology, physiology and immuno-nutrition have highlighted the importance of natural products as alternative medicines in the treatment of different diseases. In this respect, we will focus on the use of resveratrol, a natural polyphenol present in various fruits and vegetables such as grapes and peanuts, which is potentially useful for anticancer therapy, whether alone or when combined with other chemotherapeutic drugs and on its health-promoting potentials. Resveratrol has been found to act as a chemo-preventive agent to cure multiple human diseases such as cancer, diabetes, obesity as well as Huntington's, Alzheimer's and Parkinson's diseases, along with asthma. It reduces incidence of arterial hypertension, heart failure and ischemic cardiac disease and improves insulin sensitivity. Resveratrol also works as an antioxidant by promoting nitric oxide production, suppressing platelet aggregation and enhancing high-density lipoprotein cholesterol. Therefore, the use of resveratrol as a health promoting dietary supplement is rapidly increasing in today's market. However, more investigations to assess the potential of this natural compound as a complementary or alternative medicine for preventing and treating diseases are needed. These may involve different pharmacokinetic parameters before this substance hits the market as a prescribed drug. In addition, development of standardized extract or dosage could also be pursued in clinical trials.



Recent Publications

1. Mabkhot Y N, Kaal N A, Alterary S, Al-Showiman S S, Farghaly T A and Mubarak M S (2017) Antimicrobial activity of thiophene derivatives derived from ethyl (E)-5- (3- (dimethylamino) acryloyl)-4-methyl (phenylamino) thiophene-3-carboxylate. *Chemistry Central Journal*; 11(1): 75.
2. Rauf A, Raza M, Patel S, Bawazeer S, Ben Hadda T, Jehan N, Mabkhot Y N, Khan A and Mubarak M S (2017) Urease inhibition potential of di-nathodiospyrol from *Diospyros lotus* roots. *Natural Product Research*; 31(10): 1214-1218.

Biography

Mohammad S Mubarak has received his BSc and MSc degrees in Chemistry from the University of Jordan and obtained his PhD degree from Indiana University, Bloomington, USA. He has served as the Chairman of the Department of Chemistry at The University of Jordan and the Vice Dean of the Faculty of Science for several years. He is also an Adjunct Professor of Chemistry at Indiana University, Bloomington, USA since 2009. In addition to electrochemistry, his research interest is broadly based on synthetic organic chemistry, especially synthesis of compounds with expected biological activity, medicinal chemistry and drug design and discovery. He is the author and coauthor of more than 180 research papers published in peer-reviewed journals in addition to chapters published in specialized books. He has also supervised 39 theses and dissertations.

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