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Synergistic Antioxidant Effect of Anthocyanins and Other Phenolic Compounds Extracted from Red Wine

When a radical is found inside a body cells, it is very reactive and can cause the death of the cell. This can be manifested through different types of malignant and chronically degenerative diseases, such as arthritis, atherosclerosis, Alzheimer's disease, diabetes, etc. Anthocyanins are effective against peroxy and hydroxyl radicals and they are quantitatively the more abundant phenolic subclass in red wine. The antioxidative effect of red wine is mainly due to their high efficiency in scavenging free radicals. Scaveng-

ing of DPPH radical (2,2-diphenyl-1-picrylhydrazylis) is the basis of the popular DPPH antioxidant assay, which is one of the best known, frequently employed, and accurate methods. The aim of this study is to compare the antioxidant activity of dealcoholized red wine, anthocyanins and other phenolic compounds (both present in dealcoholized red wine) and what is more important, to determine if there is a possibility of a synergistic antioxidant effect between those substances. For that purpose, the DPPH assay was practiced. Acquired results showed that the antioxidant activity of all phenolic compounds in red wine, including anthocyanins is approximately 5 times greater than antioxidant activity of the anthocyanins themselves. That indicates a high possibility of a synergistic action among the different classes of polyphenols.

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