



Study of the extraction, isolation and purification suitable for the analysis of phenolic compounds in animal and human biomatrices

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ABSTRACT

Phenolic compounds include a large class of phytochemicals that are endowed with interesting biological properties. Among the most important are anthocyanins, flavonoids, catechins, phenolic acids, secoiridoids, stilbenes, coumarins and isoflavones which are widespread in vegetable crops such as fruits, vegetables, herbs, grains and seeds and derived foods such as juices, wines, oils, etc. Biochemists have used several strategies to evaluate the antioxidative power of phenolic compounds and to determine the amounts of individual species in foods and beverages. . There are literature reports on the actual amounts of these compounds or their metabolites in animal and human serum, plasma, blood, urine and body organs and the concentration levels of phenolic compounds in the fluids and tissues over time that are necessary to effectively protect human health. The variety of classes of phenolic compounds occurring in nature, their different properties, and the necessity of isolate these compounds from the other constituents presents in the complex matrices that are the biological fluids or organs, particularly rich in proteins, has conducted to the pinpoint of specialized procedures for their extraction, isolation and subsequent determination. The purpose of this paper is study of extraction, isolation and purification suitable for the analysis of phenolic compounds in animal and human biomatrices.

Keyword:

extraction, isolation, analysis, purification, phenolic compounds, biomatrices.

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