

## Determination of total phenolic compounds in some fruits and vegetables

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**Abstract:** The objective of the study was to determine the total phenolic content (TPC) of raw fruits (orange, apple, mandarin, grapefruit, and banana) and vegetables (spinach, patience, lovage, salad, onion, tomato and cabbage) available on Romanian market.

The methanolic macerates (for 48 hours) of fresh grinded samples have been analyzed by molecular absorption spectrometry using Folin – Ciocalteu reagent. The optimum conditions have been previously evaluated, using gallic acid as standard substance. The established optimum conditions were as follows: 1 mL 1:10 Folin – Ciocalteu reagent was added to the extract, was left 5 minutes at room temperature, then 1 mL of Na<sub>2</sub>CO<sub>3</sub> 7 % solution was added, fill up to 50mL with distilled water and the absorbance was measured at 650 nm, after 30 minutes. The calibration curve was linear in a concentration range of 3 – 16 mg GAE/L (gallic acid equivalents). The determined TPC ranged from 7.27 mg GAE/100 g of fresh apple weight, to 441.50 mg GAE/100 g of fresh lovage weight.

*Keywords:* total phenolic content, fruits, vegetables, Folin – Ciocalteu reagent

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