



Validation of an Alternative Analytical Method for the Quantification of Antioxidant Activity in Plant Extracts

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SUMMARY. A new method was developed to evaluate the total antioxidant activity in plant extracts, which was based on radical scavenging using 2,2'-azinobis-(3-ethylbenzothiazoline)-6-sulfonic acid. The proposed method was linear in the range of 0.86 to 26.0 $\mu\text{g/mL}$, displaying a correlation coefficient of 0.999. Moreover, the accuracy and precision analysis showed agreement with ANVISA guidelines (96.66 to 98.46 % and < 5.0%, respectively). The method demonstrated sensitivity, robustness and efficiency in detecting low concentrations of plant extracts (detection and quantification limit of 0.86 and 2.87 $\mu\text{g/mL}$, respectively) that may be present in pharmaceuticals and cosmetics preparations, again in agreement with ANVISA. In addition, the assay is inexpensive and easy to perform.

KEY WORDS: Plant extracts, Spectrophotometry UV-Vis, Antioxidant activity.

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