Analytical parameters of the microplate-based ORAC pyrogallol red assay

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The analytical parameters of the microplatebased oxygen radicals absorbance capacity (ORAC) method using pyrogallol red (PGR) as probe (ORAC-PGR) are presented. In addition, the antioxidant capacity of commercial beverages, such as wines, fruit juices, and iced teas, is estimated. A good linearity of the area under the curve (AUC) versus Trolox concentration plots was obtained [AUC = (845 ± 110) + (23 ± 2) [Trolox, ?M], R = 0.9961, n = 19]. QC experiments showed better precision and accuracy at the highest Trolox concentration (40 ?M) with RSD and REC (recuperation) values of 1.7 and 101.0%, respectively. When red wine was used as sample, the method also showed good linearity [AUC = (787 ± 77) + (690 ± 60) [red wine, ?L/mL]; R = 0.9926, n = 17], precision and accuracy with RSD values from 1.4 to 8.3%, and REC values that ranged from 89.7 to 103.8%. Additivity assays using solutions containing gallic acid and Trolox (or red wine) showed an additive protection of PGR given by the samples