

Ascorbic acid contribution to ORAC values in berry extracts: An evaluation by the ORAC-pyrogallol red methodology

Atala, E.

Vásquez, L.

Speisky, H.

Lissi, E.

López-Alarcón, C.

An oxygen radical absorbance capacity (ORAC) method based on pyrogallol red bleaching (ORAC-PGR) was used to evaluate the scavenging activity of berry extracts (blackberry, blueberry, and raspberry). Among berry extracts, only raspberry protected pyrogallol red through a clear induction time, related exclusively to ascorbic acid. The lag time allowed an estimation of the ascorbic acid concentration and its contribution to the total ORAC value, estimating that 66% of the ORAC-PGR value of raspberry is related to ascorbic acid. Also, from the induction time, an ascorbic acid concentration of 36 mg per 100 g of fresh weight was estimated for raspberry samples. The ORAC-PGR procedure could be considered as a fast and specific methodology for an estimation of ascorbic acid concentrations in complex samples. © 2008 Elsevier Ltd. All rights reserved.