

Liquid chromatography-electrospray mass spectrometric identification of oleuropein in (*Olea europaea* L.) coratina cv. Calluses

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The olive tree (*Olea europaea* L.) coratina cv. provides one of the most characteristic food of the Mediterranean Basin, i.e. olive oil and table olives containing secoiridoid biophenol glucosides (seco-BP), shown to be protective against the risk of breast, colorectal, oral, pharyngeal and esophageal cancer. Olive BPs, in general, with their catechol functional groups, exert radical scavenging activity, as well as chelating action onto iron, with loss of the potential to generate free radicals, thus preventing autoxidation of olive oil and table olives, and therefore influencing the agrifood product quality.

These considerations warrant the employment of various biotechnological techniques for the production of BPs productivity in vitro. The calluses were induced from young fruits using MS medium supplemented with phenylalanine in the range of 1- 10 (M and NAA in the range of 1.35-5.37 (M. Maximum BP production was observed in the medium supplemented with tryptophan 8 (M and NAA 5.37 (M in 20 days. A HPLC method was developed for ESI-MS analysis of oleuropein in coratina calluses.