

Abstract

Phenolic Content and Antioxidant Activity of Softgel Capsules Containing Liquid Propolis Extract from Different Brands [†]

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Introduction: Dietary supplements can provide nutrients, bioactive substances, enzymes, or probiotics as a complement to diet. Among the bioactive compounds present in propolis, phenolic compounds stand out, to which much of its biological activities and potential therapeutic effects are attributed. **Methodology:** For this purpose, six different samples of softgel capsules containing liquid propolis extract (NUT, CAP, IP, PVPV, NAI, and FIT-N) were obtained from retail stores in the Federal District (Brazil) and online shops. Analyses of average capsule total phenolic compounds and antioxidant capacity through ABTS and DPPH methods were performed. **Results:** The highest antioxidant activity and phenolic compound levels were observed in the NUT sample (51.11 mM TEAC/mg in ABTS, 2.12 mM/mg in DPPH, and total phenolic content of 3.81%) and PVPV (51.11 mM TEAC/mg in ABTS, 1.83 mM/mg in DPPH, and total phenolic content of 3.48%). The other four samples showed similar antioxidant activity through ABTS (ranging from 19.02 to 19.53 mM TEAC/mg) and comparable phenolic content (1.80% to 1.88%). **Conclusions:** It can be concluded that the softgel capsules containing liquid propolis extract showed significant variations among the evaluated brands, mainly regarding phenolic content and antioxidant activity. These results highlight the importance of quality control and standardization in the production of such supplements to ensure not only consumer safety but also the nutritional and functional efficacy of the products available on the market.

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