

Polyisoprenylated Benzophenones in Cuban Propolis; Biological Activity of Nemorosone[§]

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The Copey tree (*Clusia rosea*) has a large distribution in Cuba and its floral resin is a rich source of polyisoprenylated benzophenones. To determine the presence of these natural products, we carried out a study by HPLC of 21 propolis samples produced by honey bees (*Apis mellifera*) from different provinces of Cuba. Nemorosone resulted to be the most abundant polyisoprenylated benzophenone and the mixture of xanthochymol and guttiferone E was also observed, but in minor proportion. We studied the biological activity of the pure natural product nemorosone and its methyl derivatives. We found that nemorosone has cytotoxic activity against epitheloid carcinoma (HeLa), epidermoid carcinoma (Hep-2), prostate cancer (PC-3) and central nervous system cancer (U251). It also exhibited antioxidant capacity. Methylated nemorosone exhibited less biological activity than the natural product.