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METHODS FOR ESTABLISHING A SET OF PARAMETERS FOR IN-VITRO MODEL ASSESSMENT OF THE BIOSAFETY, ANTIOXIDANT AND ANTI-INFLAMMATORY CAPACITY OF A BIOPRODUCT OF FERMENTED POLYFLORAL POLLEN

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The invention relates to a method for assessing the biosafety and the antioxidant and anti-inflammatory capacity of a bioproduct of fermented polyfloral pollen. According to the invention, the method consists of the following steps: assessing cell viability and proliferation on in-vitro models of human cell lines (monocytes, normal and tumoural liver cells) with the MTS kit, measuring the cytotoxicity induced by the bioproduct with the LDH kit, determining the cellular antioxidant capacity, and the capacity to modulate cytokine expression in in vitro models, resulting in a set of parameters of the analysed bioproduct suitable for its use as a therapeutic product or as an active substance in dietary supplements.

CLAIMS

1. Procedure/method for evaluating the biosafety of the fermented polyflor pollen product, which establishes the degree of cytotoxicity and its effect on the viability of normal human cells, in vitro, characterized by the fact that: - the bioproduct does not show significant cytotoxicity and does not affect the viability of normal liver cells at concentrations of 5 mg/mL...0.5 mg/mL; - the bioproduct does not show cytotoxicity and does not affect the viability of normal human monocyte cells at concentrations below 1.66 mg/mL

2. Procedure/method for establishing the antiproliferative activity of the bioproduct, characterized in that it establishes the antiproliferative effect of the bioproduct through real-time monitoring, on human hepatocarcinoma cells, in the range of 50 mg/mL ... 0.5 mg/mL.

Fields of application: Medicine

1. Procedure/method for determining the cellular antioxidant capacity of the fermented polyflor pollen product, characterized in that it establishes the cellular antioxidant capacity of the bioproduct on human hepatocarcinoma cells below 5 mg/mL. 4. Procedure/method for establishing the ability to modulate cytokine expression of the fermented polyflor pollen product, characterized by the fact that GRO, IL6, IL-8 and MCP1 molecules, at 4 and 18 hours, respectively, showed an expression comparable to that of the negative control, these results indicating a moderate anti-inflammatory effect for the analyzed bioproduct.