

“Gumipharm” is more toxic. Perhaps this is due to the presence of propolis extract, the LD50 of which in mice is over 7 g / kg of body weight. However, both components are safe enough for external use in animals for the purpose of treating lesions of the skin or mucous membranes.

The results obtained by different methods differ significantly. Therefore, many researchers are wary of the possible use of bioassay data, considering it as a qualitative rather than quantitative method for assessing the effects of chemicals.

Conclusions. The combination of the effects of propolis and humic acids in the composition of the hydrogel is a new direction in the treatment of wounds in animals. Probit analysis is a promising method for toxicological analysis of new drugs for veterinary medicine. Thanks to this technique, it is possible to implement more accurate prediction of the results of using biotesting in the process of preclinical analysis of pharmaceuticals.

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Quantitative determination of phytosterins in the lipophilic extract

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High performance liquid chromatography is one of the universal and highly effective modern methods applied to the pharmaceutical analysis and separation of various substances. Phytosterins are biologically active compounds that are of great interest because of their anti-cholesterol, anti-sclerosis and anti-triglyceride activity as well as because of their inhibition efficiency in the peroxide oxidation of lipids.

Since phytosterins are the main representatives of bioactive compounds of the lipophilic pumpkin extract, this work was aimed onto elaboration of a method of quantification of the phytosterins content in the extract.

The lipophilic extract was obtained preliminary from the wasted pulp of pumpkin (*Cucurbita pepo* (L.), plant family *Cucurbitaceae*) by the circulating extraction with n-hexane (1 weight part of solvent per 6 weight parts of the pulp) repeated until complete exhaustion of the material. Then the qualitative composition of the lipophilic fraction has been determined by chromato-mass-spectrometry and the following compounds were identified: hydrocarbons, phytosterines, aldehydes, ketones, terpenic compounds, aliphatic acids and vitamins.

There is an official method of determination of a content of phytosterins in the stearin fraction of vegetable oils. According to the first edition of the State Pharmacopeia of Ukraine (SPU) and fourth edition of the European Pharmacopeia, this investigation should be realized using the gas chromatography (GC) method.

It has been found that the total content of phytosterins in the lipophilic extract from the pumpkin pulp is 2.025 % in terms of cholesterol. Therefore, this extract can be considered as a promising source of phytosterins. The results of this work can further be used for elaboration of the raw material specifications and pumpkin quality input control methods.

Search for NSP12 polymerase inhibitors active against for SARS-CoV-2 virus among 1-phenoxyethyl-phenyl-5,6,7,8-tetrahydro-2,2a,4a-triazacyclopenta[cd]azulene derivatives

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In order to search for substances active against the SARS-CoV-2 virus we have synthesized 1-phenoxyethyl-phenyl-5,6,7,8-tetrahydro-2,2a,4a-triazacyclopenta[cd]azulene **1**, as well as amides and thioamides **4 a-d, 5 e,f**.

As part of the international program E4C (Exscalate4CoV), carried out by the Institute of Pharmacology and Toxicology of the NAMS of Ukraine and the European Scientific Consortium, 1-phenoxyethyl-phenyl-5,6,7,8-tetrahydro-2,2a,4a-triazacyclopenta[cd]azulene derivatives were tested for one of the targets of the SARS Cov2 virus - polymerase NSP12.