

Antiviral activity of an extract derived from roots of *Eleutherococcus senticosus*

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[https://doi.org/10.1016/S0166-3542\(01\)00143-7](https://doi.org/10.1016/S0166-3542(01)00143-7) Get rights and content

Abstract

A liquid extract from *Eleutherococcus senticosus* roots inhibited the productive replication of human rhinovirus (HRV), respiratory syncytial virus (RSV) and influenza A virus in cell cultures infected with these viruses, all of which belong to the RNA type viruses. Analysis of virus production after treatment of the infected cells using plaque-reduction assays showed a strong antiviral activity of the *Eleutherococcus* extract. In contrast, no effect was detected using the same protocol for cells infected with the DNA viruses, adenovirus (Adeno 5) or herpes simplex type 1 virus (HSV 1). Pre-treatment of cells did not inhibit either virus adsorption or virus replication. The results of the study demonstrate that the *Eleutherococcus* extract inhibited the replication of all RNA viruses studied so far. This antiviral activity remained stable under the conditions used for drug preparation and storage.

Actoprotective effect of ginseng: improving mental and physical performance

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Abstract

Actoprotectors are preparations that increase the mental performance and enhance body stability against physical loads without increasing oxygen consumption. Actoprotectors are regarded as a subclass of adaptogens that hold a significant capacity to increase physical performance. The focus of this article is studying adaptogen herbs of genus *Panax* (*P. ginseng* in particular) and their capabilities as actoprotectors. Some animal experiments and human studies about actoprotective properties of genus *Panax* attest that *P. ginseng* (administered as an extract) significantly increased the physical and intellectual work capacities, and the data provided suggests that ginseng is a natural source of actoprotectors. Preparations of ginseng can be regarded as potential actoprotectors which give way to further research of its influence on physical and mental work capacity, endurance and restoration after exhaustive physical loads while compared with reference actoprotectors.