Antitumor Effect of Humus Extract on Murine Transplantable L1210 Leukemia

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J. Vet. Med. Sci. Jpn. Soc. Vet. Sci. **2007,** *69*(10), 1069-1071

A humus extract exhibited an antitumor effect on L1210 tumor development in isogenic DBA/2 mice. Tumor formation was delayed and a significant smaller tumor mass resulted with humic treatment, resulting in a significant increase in the lifespan of the mice. The antitumor effect was not due to direct killing of L1210 or induction of apoptosis in tumor cells.

Method for Producing Anticancer Platinum-Humic Acids Complexes

V. P. Shipov, E. S. Pigarev, E. I. Fedoros, et al.

WO 2006/088,393 (August, 2006)

The invention relates to a method for producing an anti-cancer agent based on two-valent platinum coordination compounds selected from the group: potassium tetrachloroplatinate, *cis*-dichlorodiamine-platinate, hydrogen tetrachloroplatinate and potassium tetrabromoplatinate.

AIDS

New Humic Acid Derivative as Potent Inhibitor of HIV-1 Replication

G. Kornilaeva, A. Becovich, et al.

Med. Gen. Med. **2004**, *6*(3), A10360

The IC_{50} values of a humic acid derivative against an HIV-1 T-tropic laboratory strain and an M-tropic AZT-resistant wild-type strain were 0.85 and 3.5 μg/mL, respectively. The combination of humic acid and AZT intensifies the anti-viral activity 30-100 times. The p24 HIV-1 antigen value of the first passage virus generation in the presence of 0.0025 μg/mL of compound was identical to that of the control while the infectious activity approached zero. Successive viral generations exhibited low values of p24 HIV-1 antigen and showed undetectable infectious activity.

Nutritional Compositions Containing Selenium and Lithium and Use Thereof as Anti-HIV and Anti-AIDS Nutraceuticals and Immunostimulants

W. J. Serfontein

WO 2004/107,881 (December, 2004)

The title composition is efficacious for the treatment or prophylaxis of infections, in particular HIV/AIDS; and for the enhancement of immunity. Special uses relate to reducing risks of mother-to-child transmission and treating HIV-positive pregnant women.

Investigations of the Anti-HIV Properties of Oxihumate

C. E. J. van Rensburg, J. Dekker, et al.

Chemotherapy **2002**, *48*(3), 138-143

Oxihumate inhibited HIV-1 infection of MT-2 cells with an IC_{50} value of 12.5 μg/mL. Treatment of free and cell-attached HIV with oxihumate irreversibly reduced infectivity, while the susceptibility of target cells to the virus was not impaired by treatment prior to infection. Infectivity inhibition was due to interference with CD4 binding and the V3 loop-mediated step of virus entry. No viral resistance to oxihumate developed over a 12-week period in vitro.

Phase I Trials with Oral Oxihumate in HIV-Infected Patients

M. E. Botes, J. Dekker, and C. E. J. van Rensburg

Drug Devel. Res. **2002**, *57*(1), 34-39

The objective of the 2-week study was to evaluate the safety and toxicity profile of oxihumate at various doses in HIV-1-infected individuals. All active treatment groups gained weight compared to the placebo. None of the biochemical and hematological parameters differed significantly from the baseline at the end of treatment. Oxihumate was therefore judged well tolerated with an excellent safety profile.

Allergies

Effects of Sodium Humate Isolated from Peat Obtained in Tomsk Region on Allergic Reactions

R. R. Ismatova, A. U. Ziganshin, and S. E. Dmitruk

Eksper. Klin. Farmakol. **2007**, *70*(6), 29-31

Sodium humate from peat of the Tomsk region was tested on three animal models of allergic reaction. It suppressed the development, and reduced the intensity, of anaphylactic shock in guinea pigs; and decreased the intensity of the delayed hypersensitivity reaction to goat erythrocytes. The results suggest that sodium humate is a promising substance for the treatment of allergic conditions.