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Synthetic Peptides as Analogies of the Adenovirus Capsid Protein Epitopes and Possible Immunotherapeutical Preparations
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Hexon and fiber is a major adenovirus capsid proteins. They have virus receptor(s) and take part in neutralization. Some predicted epitopes as well as N- and C-terminal peptides adenovirus type 2 hexon and fiber were synthesized. It was shown that synthetic peptides containing sequences I-I5, 20-35, I49-I60 of the hexon and 393-398, 536-547, 570-58I of the fiber had antigenic activity. It is important that anti-peptide sera reacted with native proteins and virus. Immunogenicity as virus protein (hexon) as synthetic peptide increased by synthetic polyelectrolytes which can use as immunostimulators. We observed enhancement of the antibody response against this protein by priming with synthetic peptide too. So, studied peptides can use as possible immunotherapeutical preparations and/or competitors at virus-cell interactions.

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A WIDE SPECTRUM OF ANTIVIRAL ACTIVITY OF A NEW SYNTETIC INHIBITOR OF PROTEOLYSIS

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A derivative of para-aminomethylbenzoic acid, the preparation N822, has been synthesized and the spectrum of its antiviral activity has been studied. The preparation inhibits reproduction of viruses of influenza A (HongKong) 1/68 (H3N2) and influenza B (Leningrad) 17/86 in CAM cell culture at doses of 1.25 and 0.5 mg/ml, respectively. As to the virus of influenza B, the preparation exerts a virucidal action on it. In a concentration of 6 mcg/ml the preparation of vaccina virus in CEF cell, CTI being 8, that confirms its high activity. When added to H_9 cell cilture in concentrations of 25-100mcg/ml, after 48h it inhibits reproduction of HIV-1 (strain IIIb) by 50-70%. In the model of herpetic keratokonjunctivitis of rabbits there has been shown that instillations of 1% solution of the preparation lead to unevenful recovery. In this case 5% of the testanimals and 40% of those in the control died from complications (meningoencephalitis). The preparation is low toxic: LD_{50} for white mice is 2820 mg/lg at intramuscular administration and 6240 mg/kg at peroral administration. The results obtained suqqest that the preparation N822, an inhibitor of proteolysis, is promising to be used in medicine, due to its low toxicity and wide spectrum of antiviral activity.