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Graphical abstract

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(EtO)₂(O)P-X-N $\begin{array}{l} \mathsf{X} = \mathsf{CH}_2, \, (\mathsf{CH}_2)_2, \, (\mathsf{CH}_2)_3, \, (\mathsf{CH}_2)_4, \\ \mathsf{CH}(\mathsf{OH})\mathsf{CH}_2, \, \mathsf{CH}_2\mathsf{CH}(\mathsf{OH})\mathsf{CH}_2, \\ \mathsf{CH}(\mathsf{OH})\mathsf{CH}_2\mathsf{CH}_2 \end{array}$

The 1,2,3-triazoloacyclonucleotides were evaluated in vitro for activity against a broad variety of DNA and RNA viruses and cytostatic activity against murine leukemia L1210, human T-lymphocyte CEM and human cervix carcinoma HeLa cells. Diethyl 3-{4-[(3-benzoyl-2,4-dioxoquinazolin-1-yl)methyl]-1H-1,2,3-triazol-1-yl}propylphosphonate exhibited activity against both herpes simplex viruses (HSV-1, HSV-2) in HEL cell cultures (EC₅₀ = 17 μ M) and feline herpes virus (EC₅₀ = 24 μ M) in CRFK cell cultures. Several compounds preferentially inhibited proliferation of human T-lymphocyte CEM cells at IC₅₀ in the 2.8–12 μ M range.

B - nucleobases or their mimetics

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