208

Antiviral Activity of Marine Plants from India

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Although marine flora are known for medicinal use, specific report on antiviral aspects are very few. Hence, we report here the antiviral activity of some Indian marine plants. Seaweeds, seagrasses and mangrove samples were collected from southeast coast of India from August to December, 1988. The samples were shade-dried, powdered and extracted in aqueous ethanol and screened against vaccinia, Newcastle, Encephalomyocarditis, semlikiforest, Hepatitis B and Human immunodeficiency viruses. The plant extracts were tested in vitro assay systems. The marine plants which were found promising for antiviral activity are root of Acanthus ilicifolius (anti-NDV), Sargassum wightii (anti-VV), Cheilosporum spectabile (anti-EMCV), leaf of Ceriops decandra (anti-SFV & anti-HIV), fruit of C. decandra (anti-HBV), leaf of Bruguiera cylindrica, Thalassia hemprichii and bark and stilt root of Rhizophora mucronata (broad spectrum). Further studies are at progress to purify active principles from the effective samples which may serve for the synthesis of new antiviral drugs.

209

Synthesis and Antiviral Evaluation of 1-Deaza-8-Aza and 3-Deaza-8-Aza-Purine Nucleosides. P. La Colla^, P. Franchetti*, L. Cappellacci*, M. Grifantini*, L. Messini*, M.E. Marongiu^, A. Pani^, . Depts. of ^Biologia Sperimentale, Università di Cagliari, *Scienze Chimiche, Università di Camerino, Italy.

8-aza-purine nucleosides and their analogues have been throughly investigated as antimicrobial and antitumor agents. Less known are 1-deaza-8-aza- and 3-deaza-8aza- purine derivatives. As a matter of fact, the synthesis of the 7-amino-3-B-D-ribofuranosyl-v-triazolo [4,5-b]pyridine (1-deaza-8aza-adenosine) and 4-amino-1-B-D-ribo furanosyl-v-triazolo[4,5-c]pyridine (3-deaza-8aza-adenosine) has already been described. However, to the best of our knowledge, their biological properties have not been described. Here we report a new procedure for their synthesis, as well as the synthesis of the corresponding 2'-deoxy counterparts. 1-deaza-8-aza-adenosine and -deoxy-adenosine (both as a and B anomers) were tested in vitro for antiviral activity against a panel of DNA and RNA viruses, HIV included, but none of them resulted effective. The antiviral activity of 3-deaza-8-aza-adenosine and -deoxy-adenosine will be reported.

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