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Synthesis and Biological Evaluation of Cyclo [(N-Me, O-Me) Tyr-Leu-Ala-Gly-Pro] a Pseudostellarin-A Analog

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Abstract : N-methylated analog of pseudostellarin-A was synthesized by solution phase peptide synthesis using dicyclohexylcarbodiimide as a coupling reagent in the presence of a base. The structure of the compound was confirmed by IR, ^{1}H NMR, ^{13}C NMR, FABMASS and elemental analysis. The synthesized compound was screened for antifungal and anthelmintic activity. The N-methylated Cyclo [(N-Me, O-Me) Tyr-Leu-Ala-Gly-Pro] compound showed potent anthelmintic against *Eudrilus eugeniea* compared to the standard mebendazole. The N-methylated Cyclopentapeptide compound was also found to contain moderate antifungal activity.
Key words: N-Methylmorpholine, p-Nitrophenyl ester, Dicyclohexylcarbodiimides, Pseudostellarin-A.

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