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Synthesis of Cyclo[tyrosyl-(N-Me)leucinyl-prolyl-threonyl-(nitro)Arginine]:A potent Anthelmintic Agent against *Eudrillus eugeniae*

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Abstract: Proctolin is a neuropeptide which exists in insects and crustaceans. It is a effective stimulator in the contraction of a number of visceral and skeletal muscles in insects. It is also referred to as a neuromodulator. Solution phase peptide synthesiswas employed to synthesize N-methylated analog of Cyclo(nitro)proctolin, Cyclo[Tyrosyl-(N-Me)Leucinyl-Prolyl-Threonyl-(nitro) Arginine] using N, N'–Dicyclohexylcarbodiimide as the coupling reagent. The synthesized compound was characterized by IR, ^{1}H NMR, FABMASS and elemental analysis. The compound was evaluated for anthelmintic and antimicrobial activities.

Keywords: Proctolin, neuropeptide, neuromodulator, Cyclo(nitro) proctolin, N, N'–Dicyclohexylcarbodiimide.

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