

研究简报

一种新型独特芋螺毒素的分离与结构鉴定

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摘要 从中国南海的一种食虫芋螺独特芋螺(*Conus characteristicus*)的毒液中分离得到一种新的芋螺毒素, 对其进行了结构鉴定和化学合成. 结果表明, 这是一种新的T-超家族芋螺毒素.

关键词

[芋螺毒素](#) [T-超家族](#) [独特芋螺](#) [结构鉴定](#)

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Isolation and Structure Characterization of a New T-Superfamily Conotoxin from *Conus Characteristicus*

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Abstract Cone snails are tropical marine predatory molluscs, and there is an unprecedented variety of neuropharmacologically active peptide. Over seventy living species of cone snails are distributed in China. The venom of *Conus characteristicus* collected from South China Sea was studied in this work. A new conotoxin, cr5a, was isolated from the venom through Sephadex G-25 chromatography and HPLC, and then was identified by amino acid analysis, mass spectrometry, N-terminal sequence. The primary structure of cr5a was CCKFQFLNFCCNE, it shared a conserved T-superfamily of conotoxins arrangement of cysteine residues(CC-CC). Total chemical synthesis of the two possible disulfide linkages of cr5a was achieved, and the result of HPLC co-elution showed that cr5a was a tridecapeptide with a disulfide connectivity of Cys¹-Cys¹⁰, Cys²-Cys¹¹. So cr5a is a new member of the T-superfamily conotoxins.

Key words [Conotoxins](#) [T-superfamily](#) [Conus characteristicus](#) [Structure characterization](#)

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