

研究简报

## 结合丝组二肽的树状多肽对 $\lambda$ DNA的切割

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收稿日期 2005-10-11 修回日期 网络版发布日期 2006-10-8 接受日期

**摘要** 以Fmoc手工固相合成法合成了以多聚赖氨酸为骨架, 表面结合丝组二肽的四分支和二分支树状多肽, 以高效液相色谱提纯, 电喷雾电离质谱表征, 并通过凝胶电泳法研究了其对 $\lambda$ DNA的切割活性.

**关键词** [丝组二肽](#) [树状多肽](#) [DNA切割](#)

**分类号** [0629.72](#)

## Cleavage of $\lambda$ DNA by Seryl-histidine Planted Peptide Dendrimer

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**Abstract** Artificial nucleic acid cleavage agents have received considerable attention due to their very important applications in biochemistry and molecular biology. Seryl-histidine is a dipeptide possessing DNA, protein and ester cleavage activity. Since peptide dendrimers have a lot of unique physical and chemical properties compared to normal peptide chain and have a great varieties of applications in biological areas, two and four branched seryl-histidine planted peptide dendrimers were synthesized by Fmoc solid phase peptide synthesis approach. The products were purified by HPLC and characterized by ESI-MS. Their DNA cleavage activities were tested by means of Agarose Gel Electrophoresis. In the cleavage reaction, peptide dendrimer showed a strong combining inclination to DNA, highly concentrated dendrimer solution can quench the fluorescence of EB. Even though, the DNA cleavage activity of the dendrimers was lower than that of seryl-histidine dipeptide monomer.

**Key words** [Seryl-histidine dipeptide](#) [Peptide dendrimer](#) [DNA cleavage](#)

DOI:

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