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研究报告

壳聚糖作为基因药物载体的研究进展

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摘要 以壳聚糖及其衍生物作为基因的载体的转染效率受到许多因素的影响，如复合物粒子大小、壳聚糖/DNA的比值、壳聚糖的分子量、脱乙酰度、转染过程中血清的浓度、介质的pH值等。对壳聚糖进行一定程度的修饰，可以改变壳聚糖的转染效率。介绍了壳聚糖作为基因转移载体的转染条件，转染效率和转染机制的研究情况及研究进展。

关键词 壳聚糖 转染 基因载体 机制

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Progress in Research of Chitosan as a Non-viral Gene Delivery Vector

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Abstract

Efficiency of non-viral gene delivery based on chitosan and chitosan derivatives as DNA condensing carrier is dependent on a series of factors, such as complex size, the charge ratio of chitosan/DNA, molecular mass of chitosan, the degree of chitosan deacetylation, pH and serum concentration of the transfection medium. Through modifying the chitosan in a certain extent, we can change the efficiency of transfection. Studies on transfection condition, efficiency and mechanism using chitosan and chitosan derivatives as transfection agents are reviewed.

Key words chitosan transfection non-viral gene delivery mechanism

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