以嵌段式聚合微膠體投與大分子和小分子物質到裸鼠的不同組織

Delivery of Large and Small Molecules to Different Tissues of Nude Mice by Polymeric Micelles (PM)

中文摘要

本研究的初步目標，在於以嵌段式聚合微膠體作爲載體，包覆三種物質，第一種是具有非特異性啓動子質體：pCMV-LacZ，以每天投與三個口服劑量，一共兩天的方式，在口服投與六個劑量，四十八小時之後，其基因的表現可以在裸鼠脊髓組織經由 X-gal 定性染色的方式觀察得到。第二種是具有特異性啓動子質體：pKeratin 12-LacZ，以每天點眼液投與三個劑量，一共兩天的方式，在投與六個劑量，四十八小時之後，而其基因的表現可以在裸鼠眼睛的上皮組織組織有所表現。第三種是醣質類固醇藥物-methylprednisolone (MP), 以靜脈注射的方式投與，觀察在七小時之內 signal transducers and activators of transcription 5a (STAT5a), growth associated protein-43 (GAP-43) 基因表現，結果可以觀察到在裸鼠脊髓組織內 STAT5a 和 GAP43 有被 MP 影響其效果。

英文摘要

The goal of this project was used polymeric micelles (PM) as a molecule carrier. Three types of molecules were selected. First, orally deliver a non-specificity promoter plasmid (pCMV-LacZ) (7.2Kb). There times a day with six doses, after 48 hours, the expression of LacZ gene was observed in the nude mouse spinal cord tissue by the X-gal qualitative measurement. Secondly, eye drops deliver a specificity cornea-epithelial promoter plasmid (pKeratin 12-LacZ) (7.4Kb). There times a day with six doses, after 48 hours, LacZ the gene was also observed in the nude mouse epithelial region tissue. Thirdly, intravenous delivery of methylprednisolone (MP) was observed the signal transducers and activators of transcription 5a (STAT5a) and growth associated protein-43 (GAP-43) gene expression with 7 hours. It was found that STAT5a and GAP-43 were modified by PM in the nude mouse spinal cord tissue.