生物黏膠微脂粒包覆死毒 H5N3 抗原做爲雞點鼻疫苗之研究

The Study of Intranasal Bioadhesive Liposomal-inactived-H5N3 Vaccine in Chickens

中文摘要

本研究利用 95% PC 之微脂粒包覆不活化且抗原性極低之 H5N3 家禽流行性感冒病毒，在微脂粒外增加具有生物黏著性之材料：銀耳多醣、三仙膠及幾丁聚醣形成點鼻疫苗，期望此疫苗可以在鼻腔當中停留較長時間已達到抗原持續釋放且刺激免疫細胞的效果。

使用動物爲白色來亨氏雞分別在第 1 天給予第一次點鼻接種，第 14 天給予第二次接種。第二次接種完後 7 天犧牲實驗動物，收集其鼻沖洗液及血清。用 ELISA 分析其 IgG 、IgA 生成量，評估各組疫苗刺激免疫反應產生的能力。

研究結果發現有含生物黏著性物質之組別，其血清中有較高的 IgG 抗體產生。

利用細胞實驗看一氧化氮生成量，可看出用 Liposome 及 Xanthan gum 刺激細胞後一氧化氮的生成量，有上升的趨勢，表示 Liposome 及 Xanthan gum 有活化巨噬細胞。進一步用抑制劑去看 Liposome 及 Xanthan gum 是走哪條路徑，由結果顯示 Liposome 是走 MEK 及 NF-κB 路徑。

英文摘要

In this study, 95% PC liposomes on the activation of non-coated H5N3 influenza virus of poultry in the liposomes increased with the addition of bio-adhesive materials: Tremella, Chitosan and Xanthan gum to nasal vaccines, this vaccine can expect them to stay in the nasal cavity has reached a longer period of time the effects of continuous stimulation.

We used to SPF chicken animals, the first day were given first vaccination, the 14th day to give the second vaccination, after seven days sacrificed to collect the nasal washes and serum. We analyze the IgG, IgA antibody-producing capacity with ELISA to assess the vaccine to stimulate the group''s ability to generate an immune response.

The results were found containing bio-adhesive material of the group, which have higher serum IgG antibody.

Experimental use of cell performance to see the amount of nitric oxide, Xanthan gum and Liposome stimulate cells of the performance of the amount of nitric oxide, are on the rise, so Liposome and Xanthan gum that have been activated macrophages. Inhibitors see Liposome is the article to which path to go by the results showed that MEK and NF-κB pathway.