

國外 Q 熱疫苗效力評估

生物研究組

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摘要

Q熱是由 *Coxiella burnetii* 感染所引起，被歸於生物安全等級3級之人畜共通傳染性病原，主要感染動物為人及反芻動物，症狀為流產與不孕。本研究為評估國外Q熱疫苗(Coxevac®)用於山羊之效力，於施打疫苗後以市售ELISA套組檢測試驗動物之血清抗體，及以特異性巢式PCR偵測動物陰道分泌物中病原。試驗場K場(陰性場)試驗組結果抗體陽轉率84.2% (16/19)，對照組10隻皆為陰性。試驗場T場(陽性場，陽性率5.0%，6/121)，試驗組抗體陽轉率89.7% (26/29)，對照組10隻皆為陰性。兩場所有試驗羊隻之陰道分泌物病原檢測皆為陰性。根據此試驗結果，本疫苗可有效引起羊隻之體液性免疫反應，不過實際上對抗病原的細胞性免疫目前並沒有有效簡單之方法檢測之。

Evaluation of the efficacy of imported Q-fever vaccine

CS Huang

Abstract

Q fever is a zoonosis which is caused by *Coxiella burnetii*, a BL3 pathogen. Human and ruminants can be infected and the clinical signs are abortion and stillbirth. This study is to evaluate the efficacy of imported Q-fever vaccine (Coxevac®) in goats. We used commercial ELISA kit to detect the antibodies against *C. burnetii* in serum, and specific nest-PCR to detect the pathogens in genital discharge. In herd K (Q fever-free herd), 84.2% (16/19) vaccinated goats became serological positive and all 10 goats in control group were negative. In herd T (positive herd, prevalence 5%, 6/121), 89.7% (26/29) vaccinated goats became serological positive and all 10 goats in control group were negative. And all tested goats in 2 herds were negative in pathogen detection of genital discharge. According to the results, this vaccine could successfully induce humoral immunity in goats, but presently there are no simple and useful tests to examine the cell immunity which resist the pathogens in reality.