

豬第二型環狀病毒對兔化豬瘟疫苗效力之影響

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摘要

豬第二型環狀病毒 (Porcine circovirus type 2; PCV2) 為誘發離乳仔豬罹患離乳後多系統性消耗症候群之元凶, 其主要感染 25 至 120 日齡之豬隻且具有抑制免疫反應之能力, 此 PCV2 感染期與國內兔化豬瘟疫苗 (lapinized Chinese C; LPC) 之免疫適期相互重疊, 因此, 本試驗將藉由動物試驗來評估 PCV2 對 LPC 疫苗效力之影響。經由實驗結果得知, 豬隻如於 LPC 疫苗免疫前先行感染 PCV2 時, 其在豬瘟病毒 (classical swine fever virus; CSFV) 攻毒後會有部份的豬隻呈現發燒、CSFV 病毒血症與排毒, 且其 $CD4^+CD8^-CD25^+$ 、 $CD4^+CD8^+CD25^+$ 、 $CD4^-CD8^+CD25^+$ 細胞數目與豬瘟中和抗體也顯著較單純免疫 LPC 疫苗組低。

The effect of porcine circovirus type 2 on efficacy of lapinized Chinese C vaccine of classical swine fever virus

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Abstract

Porcine circovirus type 2 (PCV2) heavily affects post-weaning pigs with the ages of 25 to 120 days and has been shown to down-regulate the immune response of swine. The PCV2-susceptible ages of pigs are known to overlap with the ages of the lapinized Chinese C (LPC) vaccination against classical swine fever virus (CSFV), which are usually 3- and 6-week or 6- and 9-week of ages. In the present study, the effect of PCV2 on efficacy of LPC vaccine of CSFV was evaluated by *in vivo* experiment. We found that some pigs in group 1 (PCV2 infected and LPC vaccinated pigs) showed fever, viremia and shedding of CSFV after CSFV challenge. Furthermore, pigs in group 1 showed significantly lower numbers of CD4⁺CD8⁻CD25⁺, CD4⁺CD8⁺CD25⁺, CD4⁻CD8⁺CD25⁺ cell in peripheral blood and neutralizing antibodies against CSFV than pigs in group 3 (LPC vaccination only) after CSFV challenge. The results indicated that PCV2 reduced the protection against CSFV challenge in LPC-vaccinated pigs.