

# Evaluation of classical swine fever vaccine efficacy in Lanyu pig

S30007

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Classical swine fever (CSF) is notifiable disease in Taiwan since it is an important, high-contagious and fatal disease in pigs. Control strategies are vital in epidemic area. In general, massive CSFV vaccination is a normal and major strategy in such area and Taiwan is no exception. Lanyu pig is one of the most important indigenous miniature pig in Taiwan. Nowadays, the studies of the Lanyu pig are focused on molecular genetics, conservation and nutrition and there is few research on the immunization and disease transmission. However, the researches of immune status on the Lanyu pig are necessary for monitoring its health status and establishing a vaccine program. Therefore, the objectives of this study was to investigate the dynamic trend of the classical swine fever serology on Lanyu pigs with vaccination. Thirty-six piglets with CSF vaccination at the age of 9 and 12 weeks were randomly selected and collected blood samples at the age of 9, 12, 15, 18, 24, 36 and 48 weeks. The serum concentration of CSFV antibody was evaluated by a commercial ELISA (CSFV antibody ELISA test kit, IDEXX, ME, USA). The results showed that the average CSF ELISA blocking percentage at the age of 9, 12, 15, 18, 24, 36 and 48 weeks were  $35.3 \pm 25.0\%$ ,  $75.2 \pm 5.2\%$ ,  $81.7 \pm 4.3\%$ ,  $85.9 \pm 4.1\%$ ,  $89.8 \pm 4.5\%$ ,  $86.7 \pm 4.0\%$  and  $79.7 \pm 7.1\%$ , respectively. In conclusion, the CSF vaccine was still effective in preventing disease at the age of 48 weeks under this experimental condition.

Key words: Lanyu pig, classical swine fever vaccine, ELISA blocking percentage.