

臺灣重要豬隻病毒性疾病檢診所需資材之建立與運用

新興傳染病組

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摘要

豬瘟 (Classical swine fever; CSFV)、豬環狀病毒 (Porcine circovirus; PCV) 以及豬生殖與呼吸綜合症病毒 (porcine reproductive and respiratory syndrome virus ; PRRSV)，為台灣地區豬隻重要病毒性疾病。但是目前該 3 種病毒以細胞培養所增殖之病毒力價仍偏低，不利後續之相關試驗研究。本次研究主要以限制性稀釋 (Limit dilution) 及細胞選殖等方法選殖出具有高感受性細胞株，以產生較高力價之病毒，並建立豬隻血清抗體檢測所需資材(細胞)。同時收集國內各養豬場不同豬齡豬隻血清，探討豬隻血清抗體陽轉以及抗體產生之時程，提供防疫所需資訊，以期健全動物防疫及確保農業安全。

Establishment and application of materials for monitoring of important swine viral pathogens in Taiwan

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Abstract

Classical swine fever virus (CSFV), porcine circovirus (PCV) and porcine reproductive and respiratory syndrome virus (PRRSV) are important swine viral disease in Taiwan. However, the cell lines, which widely used for CSFV, PCV and PRRSV propagation, are not efficient in terms of permissively to viral infection. In order to acquire cell lines that can reliably produce CSFV, PCV and PRRSV at higher titers, parent cells were cloned by limiting dilution for CSFV, PCV and PRRSV propagation, respectively. In addition, this project intends to establish the necessary materials for antibody detection of CSFV, PCV and PRRSV in pigs. Serum samples collected from pigs of various age on domestic farms were analyzed to determine the seropositive rates and the time course of antibody production. The results can provide necessary information for epidemic prevention efforts, and improve animal epidemic prevention and ensure agricultural safety.