

臺灣重要豬隻病毒性疾病檢診所需資材之建立與運用

豬瘟研究組

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摘要

豬瘟 (Classical swine fever; CSFV)、矽尼卡谷病毒 (Seneca Valley virus; SVV) 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 required for the monitoring of important swine viral pathogens in Taiwan

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Abstract

Classical swine fever virus (CSFV), seneca valley virus (SVV), and porcine reproductive and respiratory syndrome virus (PRRSV) are important viral diseases infecting pigs in Taiwan. However, the current cell lines which are widely used for CSFV, SVV, and PRRSV, are not efficient and heterogeneous in terms of permissivity to viral infection. In order to acquire cell lines that can reliably produce CSFV, SVV, and PRRSV in high titers, parent cells will be achieved by undergoing another process of dilution cloning for CSFV, SVV, and PRRSV propagation, respectively. In addition, this project intends to establish the necessary cell materials for the detection of serum antibodies of CSFV, SVV, and PRRSV in pigs and to collect swine serum from domestic pig farms to analyze seroconversion and determine the timeline of antibody production. This will provide the crucial information needed for effective epidemic prevention, and the maintenance of agricultural safety.