

豬生殖與呼吸綜合症抗體檢測及赴大陸 OIE 參考實驗室研習報告

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摘要

豬生殖與呼吸綜合症病毒(porcine reproductive and respiratory syndrome virus; PRRSV)為豬隻重要病毒性病原。依據世界動物衛生組織 (World Organisation for Animal Health, OIE) 陸生動物診斷測試與疫苗手冊之規範，可以利用酵素連接免疫吸附法 (Enzyme linked immunosorbent assay, ELISA)，間接免疫螢光法 (Indirect immunofluorescence assay, IFA)、免疫過氧化酶單層細胞測定法 (Immunoperoxidase monolayer assay, IPMA) 及中和抗體檢測法 (Serum Neutralization test, SNT) 來測定豬隻血清 PRRSV 抗體。由於中和抗體檢測法具有操作容易、成本低廉等多項優點、因此本所目前將其應用於 PRRSV 流行病學監測。

104 年 4 月 13 日至 4 月 17 日 OIE 於中國北京 PRRS 參考實驗室舉辦 PRRS 與其它豬病診斷訓練班 (Regional Hands-on Laboratory Training on Porcine Reproductive and Respiratory Syndrome (PRRS) and Other Swine Disease Diagnosis)，並邀請東亞各會員國派員參加該次訓練，其中包括蒙古、柬埔寨、緬甸、越南、寮國、馬來西亞、菲律賓、泰國、印尼以及我國。本次訓練由中國動物疫病預防控制中心(China Animal Disease Control Center, CADCC)派員擔任講師，針對 PRRS 等新興豬隻病毒進行多項診斷技術之研習，其中包括細胞培養、病毒分離、血清學檢測、即時聚合酶鏈檢測等多項研究課題。研習期間亦邀請各會員國針對其國內豬隻疾病診斷現況進行報告。藉由參與本次研習，將可提升本所 PRRS 之診斷技術，並了解亞洲鄰國的豬隻疾病動向及研究成果，作為我國豬隻疾病防治上的參考，同時與各會員國與會人員建立合作情誼，進而保護我國畜產事業。

Detection of Antibody for Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) and the Visit Report to the OIE Refer Laboratory of PRRSV

Chun Wang

Abstract

Porcine reproductive and respiratory syndrome virus (PRRSV) is the most important swine viral pathogen. According to the World Organisation for Animal Health (OIE) specification terrestrial animal diagnostic tests and vaccines manuals, serological diagnosis of PRRSV could be performed using several methods, including enzyme linked immunosorbent assay (ELISA), indirect immunofluorescence assay (IFA), immunoperoxidase monolayer assay (IPMA), and neutralizing antibody assays (SNT) pigs to determine serum antibody titers. Since the neutralizing antibody detection method is easy to use, low cost and other advantages, SNT is applied to the current epidemiological surveillance PRRSV.

In 2015, OIE has been holds PRRS and other swine disease diagnosis workshop in PRRS reference laboratory (Regional Hands-on Laboratory Training on PRRS and Other Swine Disease Diagnosis) in Beijing. Many members from East Asia have been participated this workshop, including Mongolia, Cambodia, Myanmar, Vietnam, Laos, Malaysia, Philippines, Thailand, Indonesia and Taiwan. China Animal Disease Control Center (CADCC) sent several lecturers and conducted a number of diagnostic techniques for the PRRS and other swine viral pathogens, including cell culture, virus isolation, serological testing and real-time PCR. During the workshop, each member has been issue country report, including brief national swine disease diagnostic systems and main constraints. The PRRS diagnostic techniques will be enhanced by attend this workshop, and understand the trends of swine disease research of East Asia as a reference on our pig disease prevention. In addition, the cooperation friendship will be established each other and thus protect our livestock industry.