

IMMUNOLOGY OF PORCINE CIRCOVIRUS TYPE 2 INFECTION

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Abstract Porcine circovirus type 2 (PCV2) is the major causative agents of post weaning multisystemic wasting syndrome (PMWS) in pigs. Current update of immunology against PCV2 infection revealed that PCV2 infects and replicates in different cell types, especially lymphocytes in the nearest lymph node. However, the persistent target sites for PCV2 are mononuclear cells, macrophages and dendritic cells. Although these cells represent as the antigen presenting cell, they are able to deliver the infectious cargo to many sites of body resulting in the detection of PCV2 antigens in many lymphoid organs and lymphoid tissues after infection. The PCV2 can survive in the mononuclear cells for several days or weeks by inhibiting the intracellular endosomal degradative pathways of macrophages and dendritic cells. Immunostimulation of the host by other factors leads to the replication of viruses and causes spreading of viruses throughout the body. Therefore, the consequence of the PMWS is developed. The severity of PMWS depends upon either the immunostimulating factors or the enzootic disease outbreak in pig farm. *Chiang Mai Veterinary Journal* 2007;5(1):71-80.

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