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REPLACING THE DECOY EPITOPE OF PORCINE CIRCOVIRUS TYPE 2 CAPSID PROTEIN WITH GP3 AND GP5 OF PORCINE REPRODUCTIVE AND RESPIRATORY SYNDROME VIRUS ENHANCES PROTECTIVE EFFICACY OF PRRSV AND PCV2 BIVALENT VACCINE

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The decoy epitope (169-180aa) of Procine circovirus type 2 (PCV2) capsid protein is associated with porcine circovirus-associated diseases (PCVAD). Co-infection of pigs with PCV2 and porcine reproductive and respiratory syndrome virus (PRRSV) causes postweaning multisystemic wasting syndrome (PMWS). In the present study, PCV virus-like particles (VLPs) were constructed by replacing the decoy epitope of PCV2 capsid with PRRSV GP3 epitope (61-72aa), PRRSV GP5 epitope (187-200aa) and PRRSV GP3 epitope conjugated with GP5 epitope. The three chimeric PCV2 VLPs were produced using the baculovirus expression system, tested by western blotting and detected the ability to induce protective antibody responses in mice. Three chimeric Capsid proteins induced strong humoral and cellular immune responses in mice, and may provied an effective vaccine strategy for protection against PCV2 and PRRSV.

Biography

Bo-kyoung Jung has been graduated from Catholic University of Pusan as Master of Science. Later on she obtained her Postgraduation from Catholic University of Pusan and then started studying at Catholic University of Pusan where she has continued her research. Presently she is studying at Busan City

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