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Immunization with porcine epidemic diarrhea virus harboring swine Fc induces higher immune responses

Hyunjin Shin and Jung-Eun Park Chungnam National University, Korea

In this study, we evaluated the immune responses of porcine epidemic diarrhea virus harboring swine Fc molecule. Stable Vero cells expressing swine Fc chimera on its surface (Vero-sFc) was established, and we confirmed that PEDV grown in Vero-sFc incorporated host derived chimera Fc into the PEDV virions. Immunization of pigs with PEDV-sFc induced higher level of antibodies and inflammatory cytokines; (Interferon (IFN)- γ and Interleukin (IL)-1 β) compared to those of PEDV. The increased levels of antibodies and inflammatory cytokines in pigs immunized with PEDV-sFc were statistically significantly (p<0.05) to that of PEDV and control. The PEDV-sFc group also generated the highest neutralizing antibody response. The greater ability of PEDV harboring swine Fc to that of PEDV presented it as a possible vaccine candidate.

Biography

Hyun-Jin Shin has completed his PhD from University of Minnesota and Post-doctoral studies from Northwestern Medical School. He is the member of current research workers in animal diseases, Korean Society of Viruses, Korean Society of Veterinary Medicine. He has published more than 40 papers in reputed journals and has been serving as an Editorial Board Member of *Journal of Veterinary Science*.

shin0089@cnu.ac.kr

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