Detection of porcine endogenous retroviruses in Lanyu pig [1]

Chia-Chieh Chang [2] [3] and Sheng-Yang Wu [2]

Received: Jul. 1, 2016; Accepted: Nov. 11, 2016

Abstract

This study was to investigate the existence and expression of porcine endogenous retrovirus (PERV) in Lanyu pig. The blood of 38 minipigs were collected from Taitung Animal Propagation Station. Peripheral blood mononuclear cell (PBMC) from blood samples were isolated. The existence of core protein gene (*gag*), *pol*ymerase gene (*pol*) and capsule membrane gene (*env*) from PERV provirus in DNA sequences were detected by PCR and expression of mRNA sequences of PERV provirus were tested by RT-PCR. The results showed that PERV provirus existed in all 38 DNA samples. Results of RT-PCR showed that PERV provirus expressed in 38 RNA samples. The PERV is existent and can be transcripted in Lanyu pig. This research may be helpful to assess the biosafety of PERV and to provide in experimental basis for Lanyu pigs.

Key words: Porcine endogenous retrovirus, Lanyu pig, Polymerase chain reaction.

(1) Contribution No. 2537 from Livestock Research Institute, Council of Agriculture, Executive Yuan.
(2) Taitung Animal Propagation Station, COA-LRI, Taitung, 954, Taiwan, R.O.C.
(3) Corresponding author, E-mail: janices@mail.tlri.gov.tw.