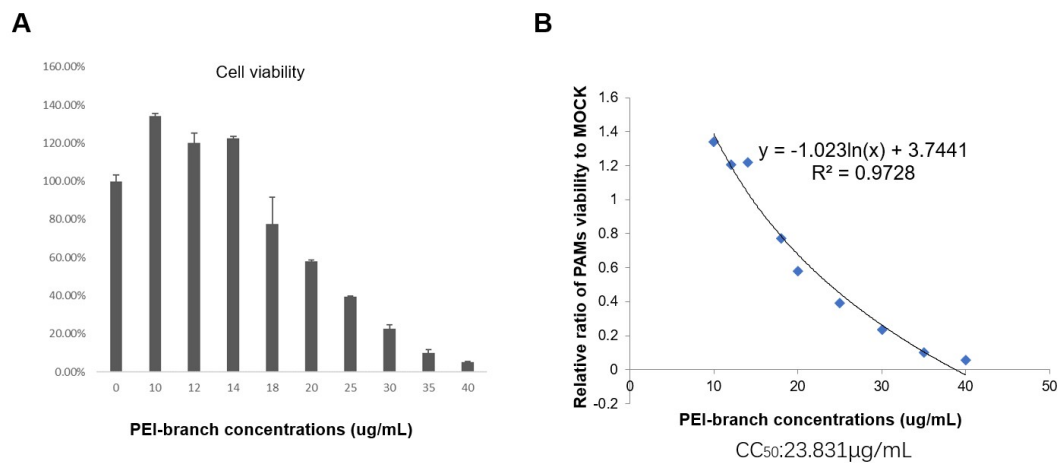
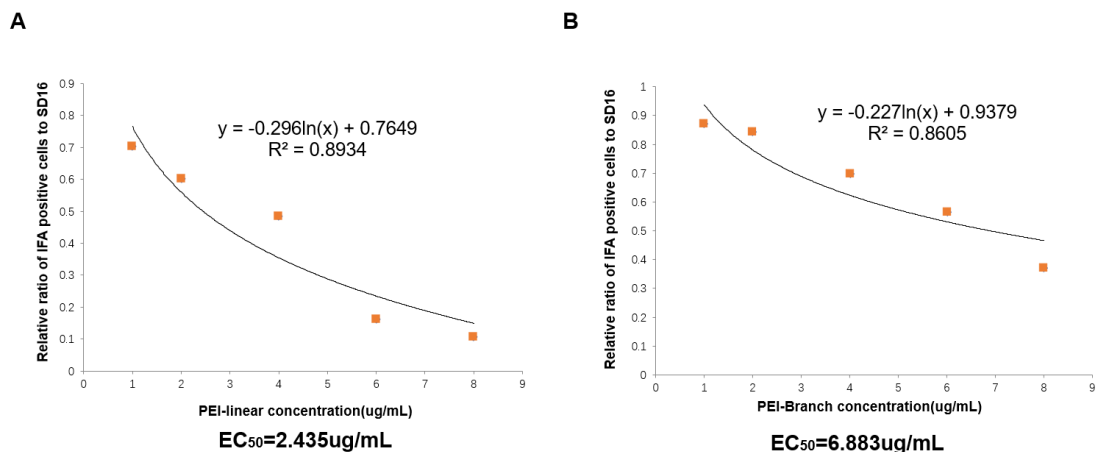


**Figure S1. Calculation of cytotoxicity concentration 50% (CC<sub>50</sub>) for two linear Polyethylenimines (PEIs) in PAMs.** (A). Calculation of CC<sub>50</sub> for 25 kDa linear PEI based on the cytotoxicity assay on PAMs. (B). Calculation of CC<sub>50</sub> for 40 kDa linear PEI based on the cytotoxicity assay on PAMs.



**Figure S2. Evaluation of cytotoxicity of branch PEI in PAMs and calculation of CC<sub>50</sub>.** (A). Cell viability assay of PAMs cells incubated in the presence of PEI-branch at the indicated concentrations at 37°C for 24 h. (B) Calculation of CC<sub>50</sub> for PEI-branch based on the cytotoxicity assay on PAMs



**Figure S3. Calculation of median effective concentration (EC<sub>50</sub>) of PEI in MARC-145 cells.**  
(A). Calculation of EC<sub>50</sub> for inhibition of PRRSV replication in MARC-145 cells by 40 kDa linear PEI based on the quantification of IFA-positive cell from IFA image via ImageJ software. (B) Calculation of EC<sub>50</sub> for inhibition of PRRSV replication in MARC-145 cells by branch PEI based on the quantification of IFA-positive cells from IFA images via ImageJ software.