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Towards the veterinary diagnostics of the future

Main topic : Surveillance and control of emerging diseases

Diagnostic performance of PEDV/PDCoV/SADS-CoV multiplex PCR

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Swine Acute diarrhea syndrome coronavirus (SADS-CoV) is a newly identified coronavirus in southern China in 2017. Similar to porcine epidemic diarrhea virus (PEDV) and porcine deltacoronavirus (PDCoV), SADS-CoV infects pigs, and causes similar manifestations of diarrhea, vomiting and dehydration. Therefore, differential diagnosis is important for efficient control of porcine diarrhea associated with coronavirus infection. In the present study, multiplex real-time PCR was developed for the differential diagnosis of PEDV, PDCoV, and SADS-CoV. The developed assay demonstrated high specificity, sensitivity and reproducibility, with a detection limit of 5 copies/μl for each virus. The data indicate that the developed multiplex real-time PCR can provide an accurate method for the differential detection of porcine enteric coronaviruses.