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Title: Sensitivity of an alternative format and readout for an in vitro infectivity assay for porcine circovirus

Author: Paul Duncan, Vaccine Bioprocess R&D, Merck and Co., Inc., West Point, PA

Summary: The sensitivity of a novel infectivity assay for porcine circovirus was characterized and compared with that of a more conventional cultivation method and readout. The novel assay is designed to keep PCV-free porcine kidney (PK-15) cells actively growing in log phase by subcultivation just as cells approach confluency, and uses a readout based on detection of PCV genomic DNA at each split. The comparator method used a porcine testicular (PT) cell line commonly used to detect a panel of other porcine viruses in 9 CFR 113-compliant testing. The PT cells were subcultivated weekly, and PCV was detected with specific antisera in an immunofluorescence endpoint assay at the end of three 7-day passages. A panel of five PCV strains, two of PCV1 and three of PCV2, were used to compare the methods. Results will be reviewed and implications for routine testing for infectious PCV will be discussed.