

2nd International Conference on

VETERINARY AND ANIMAL SCIENCE

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Annual Summit on **PATHOLOGY**

April 17 -18, 2019 | Tokyo, Japan

Development of an immunocytochemistry assay for the detection of Porcine sapelovirus infection in BHK 21 cell line

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The present study describes the development of immunocytochemistry (ICC) of Porcine Sapelovirus (PSV) BHK 21 cell line. For rising of hyperimmune sera, PSV was grown in IBRS-2 cell line up to the required volume of 30 ml for ultracentrifugation. Attempts were made to grow PSV on BHK-21 cell line. After two passages, PSV was successfully grown in BHK cell line. It produced same cytopathic effects as produced in porcine kidney origin (IBRS-2) cells such as shrinking of cytoplasm, rounding of cells and detachment of cells from the surface of flask after 24 to 30 hr. With self-raised hyper immune sera in

laboratory rats, immunocytochemistry was done in BHK-21 cells infected with PSV. Positive signals consisted of large granular aggregates of virus in the cytoplasm near the nucleus on microscopic examination. The present study concluded that, PSV is able to infect cell lines other than those of porcine origin. Antibody raised against PSV cultured in non porcine origin cell lines such as BHK21 cell line would be useful for diagnostic and further research applications in pigs.

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