Pathogenicity and immunogenicity of the FAdV CEL35 isolate in SPF chickens

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Works for me dx.doi.org/10.17504/protocols.io.8ydhxs6

November 02, 2019

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EXTERNAL LINK
https://doi.org/10.1371/journal.pone.0225863

THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION


DOI
dx.doi.org/10.17504/protocols.io.8ydhxs6

EXTERNAL LINK
https://doi.org/10.1371/journal.pone.0225863

PROTOCOL CITATION
https://dx.doi.org/10.17504/protocols.io.8ydhxs6

MANUSCRIPT CITATION
please remember to cite the following publication along with this protocol


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CREATED
November 02, 2019

LAST MODIFIED
November 02, 2019

PROTOCOL INTEGER ID
29413
Twenty eight day-old SPF White Leghorn layer chickens were divided into three groups, namely groups A, B and C. Eight chickens each were assigned in groups A and B separately and twelve chickens in group C. All chickens in groups A and B were inoculated with 0.1mL FAdV isolate, UPM1137CEL35 with virus titre of $10^{6.7}$ TCID$_{50}$/mL via oral and subcutaneous route, respectively at day old of age. Twelve chickens in group C remained uninoculated throughout the trial and acted as the control group. All chickens were monitored daily throughout 28 days post-inoculation (pi). Feed and water were given ad libitum. Four chickens were sacrificed by cervical dislocation at day 0pi in group C followed by days 14 and 28pi in all groups. The body weight and blood were collected prior to sacrifice. On necropsy, the gross lesions were recorded and samples of trachea, liver and gizzard were collected and fixed in 10% buffered formalin for histological examination. The FAdV antibody titre was determined by enzyme linked immunoabsorbent assay (ELISA) test using commercial kit (BioChek, UK, Ltd.) based on manufacture’s recommendation. The animal study was conducted under approval of Institutional Animal Care and Use Committee (IACUC), Universiti Putra Malaysia with AUP No. R076/2015.