Monitoring chronic infection with a field strain of Aleutian mink disease virus - DTU Orbit (30/11/2018)

Monitoring chronic infection with a field strain of Aleutian mink disease virus

Aleutian mink disease virus (AMDV) readily spread within farmed mink and causes chronic infections with significant impacts for welfare and economy. In the present study a currently circulating Danish AMDV strain was used to induce chronic experimental infection of farmed mink. PCR was used to detect viral DNA in full blood, organs, faeces and oro-nasal swabs weekly for the first 8 weeks and then biweekly for another 16 weeks after AMDV challenge inoculation of wild type mink. The mink (n=29) was infected and seroconverted 2–3 weeks after AMDV inoculation and AMDV antibodies persisted during the maximum experimental period of 24 weeks. Viraemia and faecal excretion of viral DNA was detected in the mink (n=29) at various and intermittent time intervals. Excretion of viral DNA in oro-nasal swabs was detected for 1–8 weeks in 21 mink. This highlights the risk of transmitting AMDV between infected farms. PCR was successfully used to detect viral DNA in organs 8, 16 and 24 weeks after AMDV inoculation with only minor differences between these weeks which is of diagnostic interest. This AMDV challenge model was also used to mimic natural infection of susceptible sapphire mink. Four of 6 sapphire mink were infected indirectly via the AMDV inoculated wild type mink whereas the other 2 sapphire mink remained uninfected.

General information
State: Published
Organisations: National Veterinary Institute, Section for Public sector service and commercial diagnostics
Contributors: Jensen, T. H., Hammer, A. S., Chriél, M.
Pages: 420-427
Publication date: 2014
Peer-reviewed: Yes

Publication information
Journal: Veterinary Microbiology
Volume: 168
Issue number: 2-4
ISSN (Print): 0378-1135
Ratings:
BFI (2018): BFI-level 2
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 2
Scopus rating (2017): CiteScore 2.7 SJR 1.175 SNIP 1.241
Web of Science (2017): Impact factor 2.524
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 2.65 SJR 1.363 SNIP 1.206
Web of Science (2016): Impact factor 2.628
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): CiteScore 2.56 SJR 1.413 SNIP 1.21
Web of Science (2015): Impact factor 2.564
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 2.54 SJR 1.291 SNIP 1.256
Web of Science (2014): Impact factor 2.511
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): CiteScore 3 SJR 1.459 SNIP 1.471
Web of Science (2013): Impact factor 2.726
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 3.18 SJR 1.441 SNIP 1.569
Web of Science (2012): Impact factor 3.127
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes