Zebrafish Picornavirus

Discovery and Detection

- IDEXX BioAnalytics collaborated with other US and European scientists to discover and characterize the first novel virus described from zebrafish.
- The proposed name for the virus is Zebrafish picornavirus 1 (Zebrafish picornavirus), abbreviated ZfPV1.
- It is a fairly unique picornavirus which will fall under a new genus, we proposed the genus name Cyprivirus.
- Zebrafish picornavirus infects enterocytes, and thus is shed via feces into the environment (fecal-oral transmission route).
- An initial screen of zebrafish samples from institutions in North America, Europe, and Asia revealed a prevalence of approximately 22%.
- The virus is widespread, about half of the institutions in the initial screen were positive.
- The virus is not known to cause clinical disease in wild-type zebrafish lines; clinically healthy
 fish were found to be infected. We do not know whether infection causes or contributes to
 clinical disease in immunocompromised lines.
- Other natural infections have been known to impact research results in both rodents and zebrafish even though they may not cause clinical disease thus, it is important to know what infectious agents are present in research colonies.
- We've developed a PCR assay for the detection of ZfPV1 and it is now available at IBA;
 preferred sample type is feces or whole fish.
- ZfPV1 PCR will be added to the standard Zebrafish Essential and Comprehensive PCR panels
 Jan. 1, 2019; it can be added to any other panel at customer request or ordered as a stand
 alone test.

For More Information

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Research Summary (ZfPV1)



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