HOKKAIDO UNIVERSITY

Title	ANALYSIS OF ONCORHYNCHUS MASOU VIRUS (OMV) DNA AND DETECTION OF OMV DNA IN VIRUS-INFECTED FISHES
Author(s)	KUBOTA, Hiroshi
Citation	Japanese Journal of Veterinary Research, 37(2), 118-118
Issue Date	1989-06-20
Doc URL	https://hdl.handle.net/2115/3160
Type	departmental bulletin paper
File Information	KJ00002377263.pdf

Hokkaido University Collection of Scholarly and Academic Papers : HUSCAP

ANALYSIS OF *ONCORHYNCHUS MASOU* VIRUS (OMV) DNA AND DETECTION OF OMV DNA IN VIRUS-INFECTED FISHES

Hiroshi KUBOTA

Department of Epizootiology
Faculty of Veterinary Medicine
Hokkaido University, Sapporo 060, Japan

DNA extracted from purified salmonid herpesvirus, *Oncorhynnchus masou* virus (OMV ; strain 00–7812), was used for the detection of viral DNA from virus-infected chum salmon (*Oncorhynchus keta*) by using Southern-blot hybridization.

OMV DNA was detected in livers of fish that showed clinical signs 2 to 3 months after infection. However, DNA was not detected in fish that resisted the virus 8 months after the infection.

Southern-blot hybridization analysis of three salmonid herpesvirus DNAs (OMV, *Herpesvirus salmonis*, and strain H–83) extracted from virus-infected cells showed that strain H–83 DNA hybridized with OMV DNA, while *H. salmonis* DNA did not bind to OMV DNA probe. These results indicated that strain H–83 should be classified in the same group as OMV, and that *H. salmonis* belonged to another group of salmonid herpesvirus.

Serial passages of OMV 60 times *in vitro* resulted in changes of the hybridization patterns of the DNA. However, no change was observed when DNA was extracted from purified OMV after passages. These results indicate that *in vitro* passages of OMV lead to a change in the genomic structure of the intracellullar OMV DNA or a modification of virus replication.