ESTABLISHMENT OF MONOCLONAL ANTIBODY TO *ONCORHYNCHUS MASOU* VIRUS (OMV)

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Monoclonal antibodies were established from mouse spleen cells immunized with salmonid herpesvirus *Oncorhynchus masou* virus (OMV) purified from culture supernatant. Ten hybridomas were obtained and six of them (2·A·2, 2·A·3, 2·D·2, 2·D·3, 3·1D·4 and 4·2E·10) secreted IgG_1, while 2A5 secreted IgG_3 and the other three (2·A·6, 2·C·4 and 3·1C·4) secreted IgM. By immunofluorescent antibody (IF) test, enzyme-linked immunosorbent assay (ELISA) using purified viral antigen, and Western blotting analysis, monoclonal antibodies gave almost the same reaction patterns in each test.

Immunofluorescent antigen was detected in the cytoplasm of cells infected with OMV in the IF test using acetone-fixed cells, as well as in cells infected with two other salmonid herpesviruses, strain H-83 and *Herpesvirus salmonis*. The antigen was observed as small granules scattered all over the cytoplasm. The ratio of fluorescent positive cells was higher in cell culture infected with OMV or strain H-83 than in that infected with *H. salmonis*. Monoclonal antibodies did not detect membrane antigen in virus-infected cells.

In ELISA using virus-infected cells as antigen, monoclonal antibodies react with the cell lysate of OMV-infected cells, but not with that of normal cells.

These antibodies did not neutralize OMV in the presence or absence of guinea pig complement.

In sodium dodecyl sulfate-polyacrylamide gel electrophoresis, 22 bands were detected in purified OMV. In Western blotting analysis, a large number of bands were observed. They appeared on membrane at intervals of 3 to 4 kd.

The reactivity of purified OMV antigen to monoclonal antibodies disappeared when ELISA plate absorbed with antigen was treated with $NaIO_4$. Proteolytic enzyme, however, did not affect the reactivity of the antigen to monoclonal antibodies.