Thesis Title	The Use of Monoclonal Antibody for Detecting Cymbidium Mosaic Virus in Orchids by ELISA and Fluorescent Antibody Staining Technique
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ABSTRACT

Monoclonal antibody SU393 against cymbidium mosaic virus (CyMV) used in this study was purified from mouse ascitic fluid clone SU393 by affinity chromatography. Monoclonal antibody SU393 has specific reaction against CyMV without cross-reacting with other viruses. Monoclonal antibody SU393 was used in the detection of CyMV via ELISA technique. An indirect ELISA using this monoclonal antibody at a concentration of 0.3 μg/ml was able to detect the partially purified CyMV Ap_1 at a level as low as 0.5 μg/ml (25 ng virus in 50 μl sample). Dot-ELISA was also able to detect down to 0.5 μg/ml of the partially purified CyMV Ap_1 (25 ng virus in 50 μl sample) when monoclonal antibody was used at a concentration of 0.3 μg/ml. In the case of using indirect ELISA, dot-ELISA, DAS-ELISA, and direct tissue blotting immuno assay for the detection of CyMV in orchids it was found that the efficiency of these techniques were equivalent to the electronmicroscopic technique. The fluorescent immuno staining technique using monoclonal antibody-FITC conjugate (MAb-FITC) was used to detect the virus and proved to be a rapid method for viewing the inclusion of CyMV in the infected orchid tissues.