

World Congress on Infectious Diseases

August 10-12, 2015 London, UK

Monoclonal antibodies against envelope glycoprotein of yellow fever virus

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Yellow fever virus (YFV) belongs to family Flaviviridae and is important mosquito-borne human pathogens. In this study, we describe the generation of monoclonal antibodies (mAbs) against envelope glycoprotein (E) of 17D Yellow fever vaccine virus for serologic diagnosis. After immunization of BALB/c mice with recombinant E protein, a total of 5 monoclonal antibodies were generated from the spleen of mice. Immunoglobulin types of antibodies were found to be 1 IgG2a/kappa, 2 IgG2b/kappa, and 2 IgG1/kappa. Indirect immunofluorescence assay revealed that all of the mAbs were reactive to YFV-infected cells. These data suggest that 5 monoclonal antibodies can be used for detection of YFV and have the potential for use in serodiagnosis.

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