

002162



CENTRAL LIBRARY
MAHIDOL UNIVERSITY

THE MODIFICATION OF MAC-ELISA AND HAEMADSORPTION TESTS
FOR THE DETECTION OF SPECIFIC IgM ANTIBODY TO JEV

BY

SURAPOL SRIBOONTHONG

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE
(CLINICAL PATHOLOGY)

IN THE
FACULTY OF GRADUATE STUDIES
OF
MAHIDOL UNIVERSITY

1987

อภินันท์นากการ

๑๓

Faculty of Graduate Studies of Mahidol U.

ABSTRACT

The present study developed two tests for the detection of IgM antibody to JE, which is a serious viral infection prevalent in Thailand. The first is the application of Solid Phase Reverse Immunosorbent Technique (SPRIST) and the latter is the application of avidin-biotin system to Mu Chain Antibody Capture Enzyme-Linked Immunosorbent Technique (MAC-ELISA). Both offer more choice to suit the need of all laboratories. Both are compared with MAC-ELISA by using 118 sera specimens (40 positive for JE, 16 RF positive, 12 from dengue patients, and 100 from Blood Bank donor) and 62 CSF specimens (12 positive for JE, and 50 from non encephalitis patients). In qualitative result, the SPRIST shows sensitivity of 95% and specificity of 94%. SPRIST results showed more cross reaction by dengue IgM but less interference by RF. The results obtained by biotin labeled antibody MAC-ELISA is identical to the standard MAC-ELISA. However, the stronger color reaction ($p < 0.05$) is found in biotin labeled antibody MAC-ELISA.