

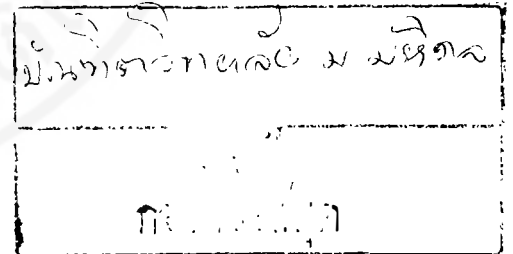
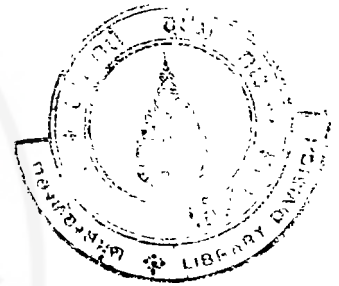
30 ต.ค. 2529

THE APPLICATION OF ENZYME-LINKED IMMUNOSORBENT ASSAY  
IN DETECTION OF ANTI-PPD ANTIBODY IN SERUM AND OF MYCOBACTERIAL  
ANTIGEN IN SPUTUM OF PULMONARY TUBERCULOSIS PATIENTS

BY

SUWANNA TRAKULSOMBOON

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



IN THE  
FACULTY OF GRADUATE STUDIES  
OF  
MAHIDOL UNIVERSITY  
1986

Copyright by Mahidol University

13232

## SUMMARY

The developments of an indirect ELISA for immunoglobulin G antibody detection and a modified double antibody sandwich method for Mycobacterium tuberculosis antigen detection were assessed in 3 groups of pulmonary tuberculosis patients. It was found that 48% (24 of 50 cases) were positive for antibody and 92% (46 of 50 cases) for antigen in pulmonary tuberculosis patients proven by chest roentgenogram and positive sputum culture, while 50% (20 of 40 cases) for antibody and 95% (38 of 40 cases) for antigen in pulmonary tuberculosis patients proven by chest roentgenogram and acid fast staining, and 36.1% (13 of 36 cases) for antibody, 50% (18 of 36 cases) for antigen in those with only positive chest roentgenogram. In comparison with non mycobacterial pulmonary patients or healthy control group 30% (12 of 40 cases) were antibody positive but only 5% (2 of 40 cases) of the patients or 8% (4 of 50) of healthy subjects were antigen positive for ELISA. From this study, the developed method seem to be more sensitive, simpler and rapid than chest X-ray, the insensitive AFB smear and the time consuming culture, especially for the large scales diagnosis of pulmonary tuberculosis.