

3836913 SITS/M : MAJOR : TRANSFUSION SCIENCE ; M.Sc.

(TRANSFUSION SCIENCE)

KEY WORDS : TISSUE TYPING TRAY / ANTISERA HLA CLASS I

EKARAJ RUNGROUNG : ANALYSIS OF QUALITY OF ANTISERA SET (HLA CLASS I (A, B)) IN SIRIRAJ HOSPITAL. THESIS

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ISBN 974-664-127-1

Knowledge of Human Leukocyte Antigen (HLA) has been studied for a long time. It was completely accepted that it played major roles in organ transplantation, allotransfusion of blood components and regulation of the immune response. Although HLA is very important in many ways, few institutes in Thailand at this time can afford to perform the HLA-testing because this kind of study requires sophisticated instruments, expensive reagents and well trained laboratory personnel. Antisera is the reagent in tissue typing tray of HLA-testing.

In Siriraj Hospital, a set of tissue typing tray (HLA class I (A, B)) has been produced in the Department of Transfusion Medicine since 1992. The objective of this study is to identify the quality of antisera set (HLA class I (A, B)) used in Siriraj Hospital, by utilizing the Lambda Scan Plus Program during years 1992 to 1996. The Lambda Scan Plus Program of One Lambda Inc. is the program used for tissue typing analysis in most laboratories in Thailand.

The quality of an antisera increases as the R value approaches unity (1.0). Generally an R value of greater than 0.8 is required for reagent purposes, but antisera having values greater than 0.6 may occasionally be used in the detection of rare specificities.

This study found that antisera being used in our typing tray during years 1992 to 1996 (91.4 % of serum 's HLA-A and 83.8 % of serum 's HLA-B) had an R value greater than 0.6. This shows that the quality of antisera is in the standard of tissue typing tray. Now, this tissue typing tray (HLA class I (A, B)) is also used at Siriraj Hospital, National Blood Red-Cross and Pramongkutkaow Hospital.