



**THE PREVALENCE OF COLTON AND LUTHERAN BLOOD PROFILES
IN MALAYS**

By

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DECLARATION

“I hereby declare that this thesis is based on my original work and has not has been submitted previously or currently for any other degree at UiTM or any other institutions.”

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ABSTRACT

The Prevalence of Colton and Lutheran Blood Profiles among Malays

This present study is about the antigen and phenotype blood group systems that have high frequency antigen in Malays. The Colton and Lutheran blood group is an unknown blood group system. These blood groups are important because they can lead to hemolytic transfusion reaction and autoimmune hemolytic anemia. Although ABO and Rhesus have been extensively study in this population, the data distribution of Colton and Lutheran blood group remains largely unknown. Therefore, we analyzed the frequency of less explored blood group using DNA based assay and interpret these data in the view of population. Polymorphisms of Colton and Lutheran blood group were collected from samples of 50 Malays voluntary Medical Laboratory UITM Puncak Alam Campus undergraduate students using sequences specific primer PCR-SSP methods for typing PCR product of blood group antigen (Coa, Cob, Lu8, Lu14). Result shown that, in the Lutheran blood group the most common phenotype among Malays was Lu8 14% (7/50). Lu8 antigen was seen in 6% (3/50) and 8% (4/50) of male and female respectively. The other phenotypes shown that no positive results for specific allele tested.

KEYWORDS:

Malaysia; Blood Group; Lutheran Blood Group; Colton Blood Group; PCR-SSP.