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**THE DOMBROCK AND INDIAN BLOOD GROUP
PROFILES AMONG MALAYS**

By

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DECLARATION

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

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ABSTRACT

THE DOMBROCK AND INDIAN BLOOD GROUP PROFILES AMONG MALAYS

Ethnic variations in red blood cell (RBC) antigens can be a source of alloimmunization, especially in-migrant populations. The differences in red blood cell antigen profiles between Malays and non-Malays may lead to blood incompatibility prior or during transfusion that may lead to various conditions and degrees of transfusion reaction. To improve transfusion safety in Malaysia, RBC genotyping to determine allele frequencies for high- and low-prevalence antigens was done. A total of 50 blood samples were collected from Malay students in UiTM Selangor, Malaysia. DNA was extracted and amplified using sequence specific primers-polymerase chain reaction (SSP-PCR) method. Results demonstrated that out of 50 subjects, 100% (50) were typed positive for *DO*02 (DOB)* and *IN*02 (INB)* while none of the subjects were typed (0%) for the antithetical allele, *DO*01 (DOA)* and *IN*01 (INA)*, respectively. The findings demonstrated that the high frequency antigens among Malays are *DOB* and *INB*.

Keywords: Dombrock blood group, Indian blood group, genotyping, molecular testing, high-prevalence antigens.