The southeast asian journal of tropical medicine and public health

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Abstrak

This study aimed to demonstrate class switch recombination (CSR) in heavy chain expressing immunoglobulin G (IgG) and IgE in human B cells (CD20+CD27-) were cultured with crude P. falciparum antigen (cPfAg) and anti-CD40. on day 4 post-exposure, total RNA from B cells was prepared and the occurance of CSR from IgM to IgG and/or IgE was investigated by reverse transciption-polymerase chain reaction. Molecular markers to detect active CSR included enzyme activation-induced cytidine deaminase mRNA, y and e-germline transcripts (y,e-GLT), circle transcript (CT) and mature transcript (y and e-mRNA) expression. On day 7 and day 14 after exposure, levels of Igs in the culture supernatant were determined by enzyme-linked immunosorbent assay. Our findings showed that we could demonstrate cPfAg-stimulated B cells undergoing CSR by use of the expressed CSR markers and the increase in spesific IgG and IgE indicating the potential of this approach in the study of CSR in P. falciparum stimulated B cells.