

The crucial role of MHC molecules to produce the accomplished viral vaccines

Tirasak Pasharawipas
Rangsit University, Thailand

ATo create protective immunity against viral infections, the body requires a compatible protective antibody to prevent the viral attachment to a target cell. To produce the antibody, the key factor is not just about a viral antigen but also the requirement of the associated molecules so-called major histocompatibility complex (MHC). Each molecule of MHC alleles plays a key role in the immune response by forming a specific complex with its appropriate epitope of an antigen to induce specific T cell clone thru their specific receptor. MHC class I is required for inducing cytotoxic T cell while MHC class II is for helper T cell. Helper T cell plays a

key role to monitor and induce an associated cognate B cell to produce the antibody. Since the MHC gene alleles are highly polymorphic so the possibility that the individuals have the same gene alleles might be one in a million which mostly can be found in those who are an identical twin. This presentation will cover up the crucial role of MHC molecules to produce viral vaccines in the accomplished direction.