

Diagnostic ELISA for detection of Chikungunya virus

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Technology Domain: Diagnostics

Disease Area : Communicable Diseases
– Vector Borne Diseases (other than Malaria)

Need and utility of the Technology from Public health perspective:

Chikungunya is a mosquito-borne viral disease caused by an Alphavirus of the Togaviridae family, first identified in Tanzania in 1953 and responsible for multiple outbreaks across tropical regions of Africa and South Asia. The CHIK IgM capture ELISA, developed by ICMR-NIV, is designed for the qualitative detection of chikungunya virus-specific IgM antibodies in patient serum, aiding in the early diagnosis of individuals presenting symptoms consistent with the infection.

Technology Readiness level (TRL):

The technology has been standardized for up scaling. It is currently in regular production and the kits are being supplied to sentinel surveillance hospitals and apex referral laboratories under national program.

Validation Status and outcome:

The present CHIK IgM kit has been evaluated by Centres for Disease control (CDC), Fort Collins, CO, USA for its performance. The kit has a diagnostic sensitivity of 95% and diagnostic specificity of 98%. The kit has high inter and intra assay reproducibility.

Market Potential:

The IgM-based Diagnostic ELISA kit for Chikungunya virus detection presents strong market potential, driven by the increasing prevalence of Chikungunya outbreaks in tropical and subtropical regions, particularly in Asia, Africa, and Latin America. IgM antibodies are crucial for early-stage detection, making these kits highly valuable for timely diagnosis and containment of the virus. As governments and healthcare providers prioritize early detection and decentralized testing, IgM ELISA kits are becoming essential tools in managing vector-borne diseases like Chikungunya, offering both clinical relevance and commercial viability.

Publication: Nil

IP Filing: NA