

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441086621 A

(19) INDIA

(22) Date of filing of Application :11/11/2024

(43) Publication Date : 06/12/2024

(54) Title of the invention : MULTIPLEX RAPID DIAGNOSTIC KIT FOR SIMULTANEOUS DETECTION OF VECTOR-BORNE DISEASES

(51) International classification :G01N33/569, G01N33/558, G01N33/543,
G01N33/53, C12Q1/00, C07K14/445

(86) International Application :NA

No Filing Date :NA

(87) International Publication : NA

No Filing Date :NA

(61) Patent of Addition to :NA

Application Number :NA

Filing Date :NA

(62) Divisional to Application :NA

Number :NA

Filing Date :NA

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(57) Abstract :

ABSTRACT MULTIPLEX RAPID DIAGNOSTIC KIT FOR SIMULTANEOUS DETECTION OF VECTOR-BORNE DISEASES The present invention relates to a multiplex and simultaneous antigen detection kit (200) for the rapid diagnosis of Dengue, Chikungunya, and two forms of Malaria (Plasmodium vivax and Plasmodium falciparum) from whole blood samples. Utilizing vertical flow technology, the kit allows the detection of multiple antigens concurrently, offering faster results with enhanced sensitivity and specificity compared to traditional lateral flow assays. The diagnostic device employs metal nanoparticles and gold conjugates to detect the specific antigens, facilitating co-infection detection without the need for serum or plasma separation.

No. of Pages : 33 No. of Claims : 10