BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Qiagen introduces QIAprep Plasmodium kit to strengthen malaria research efforts

April 1, 2025 | News

Allowing researchers to monitor disease prevalence through high-frequency screening

Qiagen N.V. has announced the launch of the QIAprep Plasmodium Kit and two companion assays to support malaria research and surveillance efforts.

This new solution combines sample preparation and quantitative PCR (qPCR) into a single workflow, providing a rapid and accessible tool for detecting malaria-causing parasites from blood samples.

Malaria remains one of the world's most pressing public health challenges, particularly in tropical and subtropical regions. The disease is caused by five species of *Plasmodium* parasites, with *Plasmodium falciparum* responsible for the most severe cases. In 2024 alone, malaria accounted for more than 250 million cases worldwide, with over 90% occurring in Africa.

While the integration of vaccines into anti-malaria programmes began in 2024, and mark a significant milestone, comprehensive monitoring of parasite prevalence and evolution is essential for disease control. The QIAprep Plasmodium Kit simplifies malaria research by enabling the detection of all five *Plasmodium* species in human samples.

Qiagen's QIAprep technology – originally developed for COVID-19 research – integrates liquid-based sample preparation with qPCR into a streamlined and cost-efficient workflow. It offers high sensitivity, detecting as little as one parasite per microliter, and is compatible with both liquid and dried blood samples.

The accompanying assays further enhance malaria research detection and differentiation. The Qiagen Pf/Non-Pf Detection Assay is a single-reaction screen for the most common cause of malaria in humans involving *Plasmodium falciparum*, while the Qiagen Pv/Pm/Po/Pk Detection Assay helps distinguish between the remaining four common species that cause malaria – *P. vivax, P. malariae, P. ovale,* and *P. knowlesi* – allowing scientists to track mixed infections, study parasite evolution during vaccine rollouts and ensure that comprehensive epidemiological surveillance data is available when designing response measures.