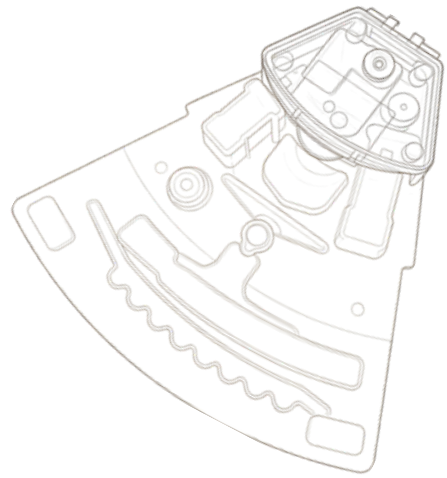
呈晖医疗
CHENGHUI MEDICAL



4 Malaria Pathogen Nucleic Acid Detection Kit (Fluorescent PCR-Chip Method)

Sample-to-Answer 4 Plasmodium Detection Panel | 4 Samples in 80 Minutes

Powered by Chenghui Multi-Disc (CQ-0404) Fully Automated Molecular POCT Platform



CE
IVD

Detection Targets List (4 targets in Total)

- **Plasmodium spp.,**
- **Plasmodium falciparum,**
- **Plasmodium vivax,**
- **Plasmodium knowlesi.**

Challenges

1. **Insufficient Diagnostic Accuracy & Limited Subtyping Capacity Drive Clinical Mismanagement:** Traditional gold-standard microscopy relies heavily on experienced technicians, with poor sensitivity for low-parasitemia infections that frequently lead to missed diagnoses. Rapid diagnostic tests (RDTs) offer limited strain differentiation, failing to accurately identify easily misdiagnosed zoonotic Plasmodium knowlesi or distinguish relapsing P. vivax. This lack of precise subtyping results in inappropriate antimalarial regimens, unaddressed relapse risks, and delayed recognition of life-threatening severe falciparum malaria.

2. **Delayed Centralized Testing Misses Critical Treatment & Quarantine Windows:** Severe P. falciparum malaria can progress to organ failure and death within hours, requiring prompt targeted intervention. Conventional nucleic acid testing depends on centralized molecular laboratories with lengthy sample transport and batch processing workflows, delaying results by hours to days. High deployment barriers also make standard PCR unavailable in remote endemic regions, grassroots facilities and border checkpoints, slowing both clinical intervention and port quarantine clearance.
3. **Rising Imported Transmission Risks Create Frontline Surveillance Gaps:** Growing cross-border mobility drives a steady rise in imported malaria cases in non-endemic regions. Conventional on-site tests lack the sensitivity to detect low-parasitemia asymptomatic imported infections, and most routine panels fail to cover emerging zoonotic P. knowlesi, creating hidden risks of local secondary transmission and undermining global malaria elimination goals.

Core Clinical Benefits



1. **Precise 4-Plex Plasmodium Subtyping to Guide Targeted Clinical Care:** A single run covers 4 targets: pan-Plasmodium genus-level screening, P. falciparum, P. vivax and P. knowlesi, delivering both infection confirmation and precise species differentiation. It clearly distinguishes high-lethality falciparum malaria, relapsing vivax malaria and easily misdiagnosed knowlesi malaria, enabling accurate targeted antimalarial regimen selection, reducing inappropriate medication and lowering risks of severe disease and recurrence.
2. **80-Min Rapid Results + 4-Sample Batch Testing for Dual Clinical & Public Health Use:** With only 1 minute of hands-on operation, the assay delivers results in ~80 minutes — far faster than centralized workflows — helping clinicians seize the narrow treatment window for severe malaria and supporting rapid on-site port quarantine to block imported case transmission. Compatible with the Multi-Disc (CQ-0404) fully automated analyzer, 4 parallel samples per run significantly improves batch throughput for mass field screening and port clearance. The fully closed system requires no dedicated molecular laboratory or specialized staff, enabling direct deployment in endemic field sites, border quarantine stations and primary care clinics. With higher sensitivity than microscopy and RDTs, it detects low-parasitemia early-stage and asymptomatic infections, supporting imported case control, epidemiological surveillance and WHO-aligned malaria elimination programs.
3. **Onboard Single-Cartridge Quality Control:** Built-in internal control monitors the entire fluidic and PCR reaction process, effectively reducing the risk of false-negative results.
4. **Cold-Chain-Free Storage & Transportation:** Stable for 12 months at 4–28°C for storage and transport, no cold chain required, cutting logistics and inventory costs for healthcare facilities and public health agencies.

CONTACT US:

Website: https://en.chenghuimed.com/
General Inquiries: info@chenghuimed.com
Sales: sales@chenghuimed.com
Service & Support: service@chenghuimed.com
Address: 12th Floor, North Zone, Building 2B, Skyworth Innovation Valley, No. 8 Tangtou 1st Road, Shiyan Street, Bao'an District, Shenzhen, Guangdong Province, China