呈晖医疗
CHENGHUI MEDICAL

23 Lower Respiratory Tract Pathogen and Antimicrobial Resistance Gene Nucleic Acid Detection Kit (Fluorescent PCR-Chip Method)

Sample-to-Answer 23+1 LRT Pathogen & AMR Panel | 4 Samples in 80 Minutes

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



CE IVD

23 targets CE-certified, 1 target RUO

Detection Targets List (23+1 Targets in Total)

- **Lower Respiratory Pathogens (16 CE-certified + 1 RUO): Streptococcus pneumoniae, Haemophilus influenzae, Moraxella catarrhalis, Acinetobacter calcoaceticus-baumannii complex, Enterobacter cloacae complex, Escherichia coli, Streptococcus pyogenes, Legionella pneumophila, Klebsiella aerogenes, Klebsiella oxytoca, Klebsiella pneumoniae group, Proteus spp., Pseudomonas aeruginosa, Serratia marcescens, Staphylococcus aureus, Streptococcus agalactiae, Chlamydia psittaci* (RUO).**
- **Antimicrobial Resistance Genes (7): CTX-M, KPC, NDM, OXA-48-like, VIM, IMP, mecA/mecC&MREJ (MRSA).**
- **Remark: *Chlamydia psittaci is not CE-certified and is for Research Use Only. Not for use in diagnostic procedures.**

Clinical Challenges

1. **Complex Pathogen Spectrum & High Missed Diagnosis Risk:** Lower respiratory tract infections (HAP, VAP, severe CAP) are a leading cause of inpatient mortality. Severe cases frequently involve mixed infections and atypical pathogens, while conventional culture and single-target PCR have limited pathogen coverage, resulting in high missed diagnosis rates and delayed targeted intervention.
2. **Prolonged Turnaround Forces Blind Empirical Antibiotic Use:** Traditional bacterial culture takes 24–72 hours to deliver results, and centralized testing workflows further extend turnaround time. Critically ill patients must rely on empiric broad-spectrum antibiotics during this waiting window, increasing risks of treatment failure, prolonged hospital stays and adverse clinical outcomes.
3. **Rising AMR Burden & High Deployment Barriers Slow On-Site Response:** Widespread drug-resistant strains (carbapenem-resistant Gram-negative bacteria, MRSA) amplify hospital infection control pressure, while long antimicrobial susceptibility testing cycles accelerate AMR spread. Standard nucleic acid testing requires dedicated PCR labs and trained personnel, making it unable to support rapid ICU bedside diagnosis and timely nosocomial outbreak containment.

Core Clinical Benefits



1. **Full-Spectrum Etiological & Resistance Profiling to Reduce Missed Diagnosis:** A single sputum/BALF sample covers 16 prevalent CE-certified LRT pathogens and 7 core AMR genes (23 CE-marked targets in total), plus Chlamydia psittaci (RUO). It accurately identifies both single and mixed infections in one run, drastically cutting missed diagnosis rates and delivering clear etiological evidence for targeted treatment.
2. **Rapid 80-Min Turnaround to Optimize Antibiotic Stewardship:** Compatible with the Multi-Disc (CQ-0404) fully automated analyzer, the assay delivers complete results in ~80 minutes with only 1 minute of hands-on operation, enabling timely regimen adjustment, early de-escalation of broad-spectrum antibiotics and shortened hospital length of stay.
3. **High-Efficiency Batch Testing with 4 Parallel Samples:** 4 parallel samples per run significantly improves batch detection throughput, securing the critical diagnostic window for critically ill patients and supporting efficient processing of routine inpatient respiratory samples.
4. **Fully Automated, Low-Threshold Workflow:** Pre-loaded nucleic acid extraction and lyophilized PCR reagents onboard the cartridge. Full automation of purification, amplification and analysis after sample loading; no manual extraction, dedicated PCR lab or specialized operator required, enabling bedside deployment in ICUs and respiratory wards.
5. **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.
6. **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.

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