

# Bloodstream Infections Multiplex Real Time PCR Detection Kit

## Fluorescent Probe-Based Real-Time PCR Assay

Bloodstream infections (BSIs) are among the most life-threatening clinical conditions, as pathogens entering the bloodstream can quickly spread throughout the body, triggering severe systemic inflammation. Without prompt diagnosis and targeted intervention, BSIs can rapidly progress to sepsis, septic shock, or multi-organ failure. Therefore, rapid and precise identification of the causative pathogens and associated antimicrobial resistance genes is crucial for timely initiation of appropriate therapy, guiding antibiotic selection, and improving overall patient outcomes.

This kit provides a comprehensive molecular solution for detecting 32 common bloodstream pathogens along with three major resistance genes (*mecA*, *vanA/B*, and *KPC*). With its high sensitivity and specificity, this multiplex PCR assay delivers fast and reliable results, helping clinicians to guide targeted therapy and enhance patient outcomes.

### Test Principle

This kit uses polymerase chain reaction (PCR) technology based on TaqMan fluorescent probe to detect 32 microbes and 3 drug resistance-related genes of microbes that invade the blood circulation and cause infection in blood specimens.



## Target Pathogens

	FAM	HEX/VIC	ROX	CY5
Well 1	<i>Streptococcus pyogenes</i>	<i>Staphylococcus aureus</i>	<i>Streptococcus pneumoniae</i>	<i>Streptococcus agalactiae</i>
Well 2	<i>Listeria monocytogenes</i>	<i>Escherichia coli</i>	<i>Enterococcus faecalis</i>	<i>Pseudomonas aeruginosa</i>
Well 3	<i>Klebsiella oxytoca</i>	<i>Haemophilus influenzae</i>	<i>Neisseria meningitidis</i>	<i>Serratia marcescens</i>
Well 4	/	<i>Enterococcus faecium</i>	<i>Staphylococcus saprophyticus</i>	/
Well 5	<i>Proteus vulgaris</i>	Human betaherpesvirus 5	<i>Proteus penneri</i>	<i>Proteus mirabilis</i>
Well 6	<i>Candida glabrata</i>	<i>Candida tropicalis</i>	<i>Candida albicans</i>	<i>Candida krusei</i>
Well 7	Human gammaherpesvirus 4	Human alphaherpesvirus 1	Human alphaherpesvirus 3	Human alphaherpesvirus 2
Well 8	<i>Staphylococcus capitis</i>	<i>Klebsiella pneumoniae</i>	/	<i>β-actin</i>
Well 9	<i>Staphylococcus haemolyticus</i>	<i>Candida parapsilosis</i>	<i>Acinetobacter baumannii</i>	<i>Staphylococcus epidermidis</i>
Well 10	<i>mecA</i>	<i>KPC</i>	<i>vanA/B</i>	/

### Broad Pathogen Coverage

Simultaneously detects 32 common bloodstream pathogens and key resistance genes in a single assay.

### Captures critical treatment window

Supports the rapid initiation of targeted antimicrobial therapy.

### Addresses Blood Culture Limitations

Overcomes long turnaround time and difficulty detecting fastidious pathogens.

## Application Scenarios

<p><b>ICU (Intensive Care Unit)</b> High-risk patients with frequent sepsis/bacteremia.</p>	<p><b>Emergency Department</b> For febrile or shock patients requiring rapid pathogen and resistance-gene identification.</p>	<p><b>Infectious Disease Department</b> Routine BSI testing and management of complex drug-resistant infections; complements blood culture.</p>
<p><b>Surgery Department</b> For monitoring post-surgical infections, especially in cardiac surgery and transplant patients.</p>	<p><b>Hematology Department</b> Neutropenic patients at high infection risk needing early pathogen detection.</p>	<p><b>Obstetrics Department</b> Early screening for neonatal sepsis and infections in maternal-neonatal care.</p>

## Ordering Information

Cat No.	Product Name	Format	Sample Types	Shelf Life	Storage	Kit Size	Certification
B80203T2012	Bloodstream Infections Multiplex Real Time PCR Detection Kit	Lyophilized	Whole Blood	12 months	2-8°C	12 Tests/Kit	CE

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