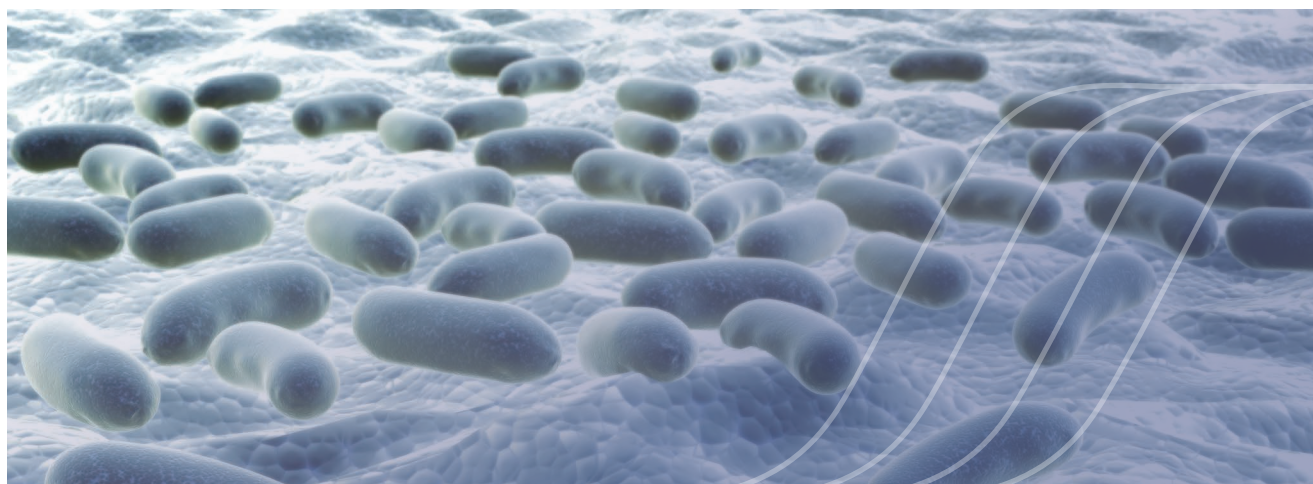


Cica Geneus™

ESBL Genotype Real Time PCR Detection KIT



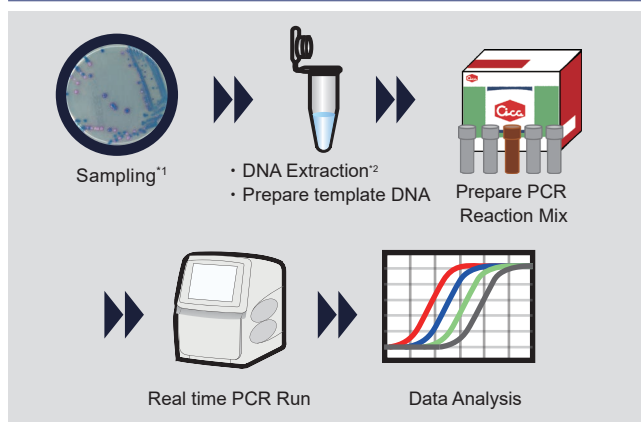
Extended Spectrum β -Lactamases (ESBLs) are enzymes that mediate resistance to penicillins, extended-spectrum third generation cephalosporins and monobactams. In recent years, ESBL-producing bacteria have become a problem not only for healthcare-associated infections but also for their spread throughout the community. Many ESBL genes are present on plasmids, and there is a risk of them spreading across bacterial species through conjugation. Therefore, it is important to detect ESBL-producing bacteria early and take prompt measures to prevent infection.

This kit contains 2 kinds of 4-plex real-time PCR assay that simultaneously detects eight ESBL genotypes, and an internal control (IC) to confirm the presence or absence of PCR inhibition.

Characteristics

- Simultaneous detection of eight representative ESBLs genotypes (CTX-M-1 group, CTX-M-9 group, CTX-M-(2, 8, 25) group, SHV, TEM, GES(ESBL type)) is possible by 2 kinds of PCR.
- The presence or absence of PCR inhibition can be confirmed by internal control.
- Detection is possible in about 1 hour by real-time PCR.

Work flow



Composition (30 rxns)

Reagent	Volume
A AptaTaq DNA Master (5×Conc.) *3	240 μ L ×1
B PCR Supplement	360 μ L ×1
C Primer/Probe Mix 1	150 μ L ×1
D Primer/Probe Mix 2	150 μ L ×1
E Positive Control	150 μ L ×1

*1 CHROMagar™ ESBL is recommended.

*2 Cica Geneus™ DNA extraction reagent is recommended.

*3 AptaTaq DNA Master (5×Conc.) is the product of Roche Diagnostics K.K.

Product information

Product name	Packaging size	Stored at	Product No.
Cica Geneus™ ESBL Genotype Real Time PCR Detection KIT	30 rxns	-25~-20 °C	07498-96

Analyte/Fluorophore

Reaction mixture 1

Analyte	Fluorophore
CTX-M-1 group	FAM
TEM	VIC
CTX-M-9 group	ROX (Red610)
Internal Control	Cy5

Reaction mixture 2

Analyte	Fluorophore
SHV	FAM
CTX-M-(2,8,25) group	VIC
GES (ESBL type)	ROX (Red610)
Internal Control	Cy5

Compatibility : Real-time PCR instruments compatible with 4 types of fluorescent dyes: FAM, VIC, ROX (Red610), Cy5

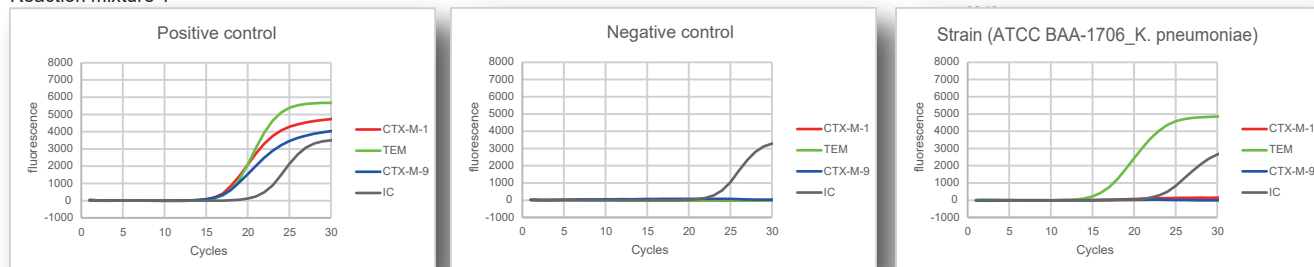
Compatibility (Based on internal test)

■ Thermo Fisher Scientific: QuantStudio5 ■ Bio-Rad: CFX Opus 96 ■ Roche Diagnostics: LightCycler® 96

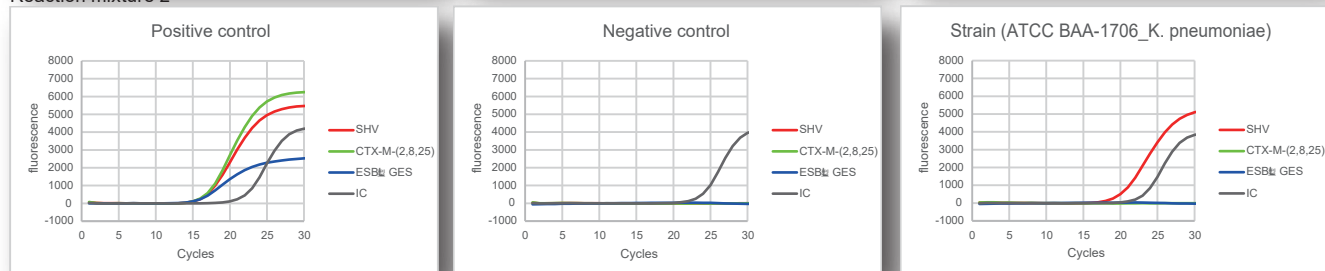
Results

Amplification curve : Positive control (Reagent E) and TE buffer as a negative control and some strain were tested.

Reaction mixture 1



Reaction mixture 2



Equipment : CFX Opus 96

Related Products

Real-time PCR KIT

Product name	Packaging size	Stored at	Product No.
CicaGeneus™ Vancomycin Resistance Gene Real Time PCR Detection KIT Target genes : <i>femA</i> , <i>mecA</i> , <i>blaZ</i> , IC	30 rxns	-25~-20 °C	07440-96
CicaGeneus™ CDtoxin Gene Real Time PCR Detection KIT Target genes : <i>toxA</i> , <i>toxB</i> , binary toxin	30 rxns	-25~-20 °C	07443-96
CicaGeneus™ MRSA Related Gene Real Time PCR Detection KIT Target genes : <i>femA</i> , <i>mecA</i> , <i>blaZ</i> , IC	30 rxns	-25~-20 °C	07512-96
CicaGeneus™ Carbapenemase Genotype Real Time PCR Detection KIT Target genes : (<i>IMP-1</i> or <i>2</i> , <i>VIM</i> , <i>KPC</i> , <i>NDM</i> , <i>OXA-48</i> -like, GES(carbapenemase)) group, IC	30 rxns	-25~-20 °C	07515-96

※Fluorophore:FAM, VIC, ROX (Red610), Cy5

DNA Extraction KIT

Product name	Packaging size	Stored at	Product No.
Cica Geneus™ DNA Extraction reagent	120 rxns	2~8 °C	08178-96

- Please use the products listed in the catalog as reagents (chemicals used for testing or research purpose).
- Product information is subject to change without notice. For the latest information, please have a look at our website "Cica-Web".

[Contact]



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Please scan for more product details!

