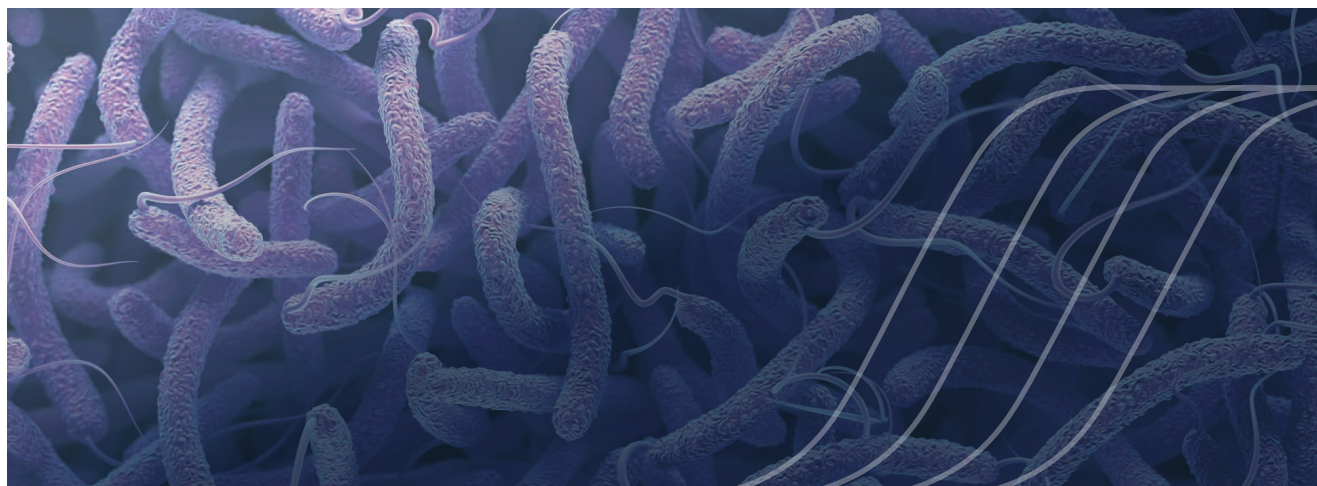


# Cica Geneus™

## CDtoxin Gene Real Time PCR Detection KIT

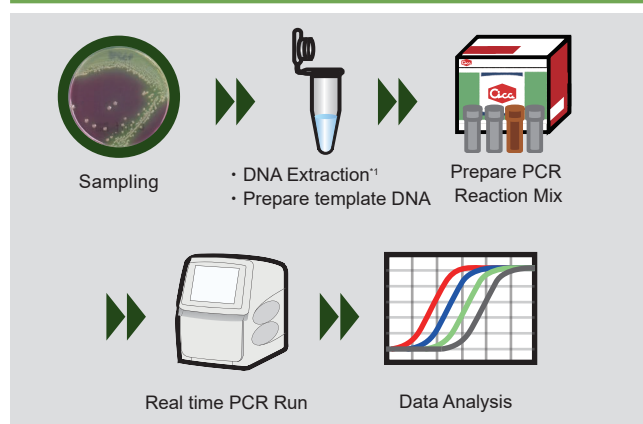


*Clostridioides difficile* is an obligately anaerobic, Gram-positive, spore-forming bacillus. While this bacterium is present in the intestines of some healthy individuals, it can overgrow and cause diarrhea and pseudomembranous colitis when the intestinal flora is disrupted by antibiotic use or other factors. These symptoms are primarily caused by toxins (toxin A and toxin B) produced by this bacterium, and highly virulent strains producing a third toxin, binary toxin, have also been reported, primarily in North America and Europe. This bacterium can survive for long periods in the environment by forming spores, and is resistant to alcohol and other substances. Therefore, it is easily transmitted by contact with hands, doorknobs, etc., or by oral infection, making the spread of infection a problem in medical institutions and other facilities. This kit is a 4-plex real-time PCR kit that simultaneously detects *C. difficile* toxin genes *tcdA* (toxin A), *tcdB* (toxin B), and *cdtA* (binary toxin), and an internal control (IC) to confirm the presence or absence of PCR inhibition.

### Characteristics

- Simultaneous detection of toxin genes of *C. difficile* *tcdA*(toxin A), *tcdB*(toxin B), and *cdtA*(binary toxin) is possible.
- 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.) *2 | 120 μL ×1 |
| B PCR Supplement                  | 180 μL ×1 |
| C Primer/Probe Mix                | 150 μL ×1 |
| D Positive Control                | 100 μL ×1 |

\*1 Cica Geneus™ DNA extraction reagent is recommended.

\*2 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™ CDtoxin Gene Real Time PCR Detection Kit | 30 rxns        | -25~-20 °C | 07443-96    |

## Analyte/Fluorophore

| Analyte                    | Fluorophore  |
|----------------------------|--------------|
| <i>tcdA</i> (toxin A)      | FAM          |
| <i>cdtA</i> (binary toxin) | VIC          |
| <i>tcdB</i> (toxin B)      | ROX (Red610) |
| Internal Control           | Cy5          |

## Compatibility

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

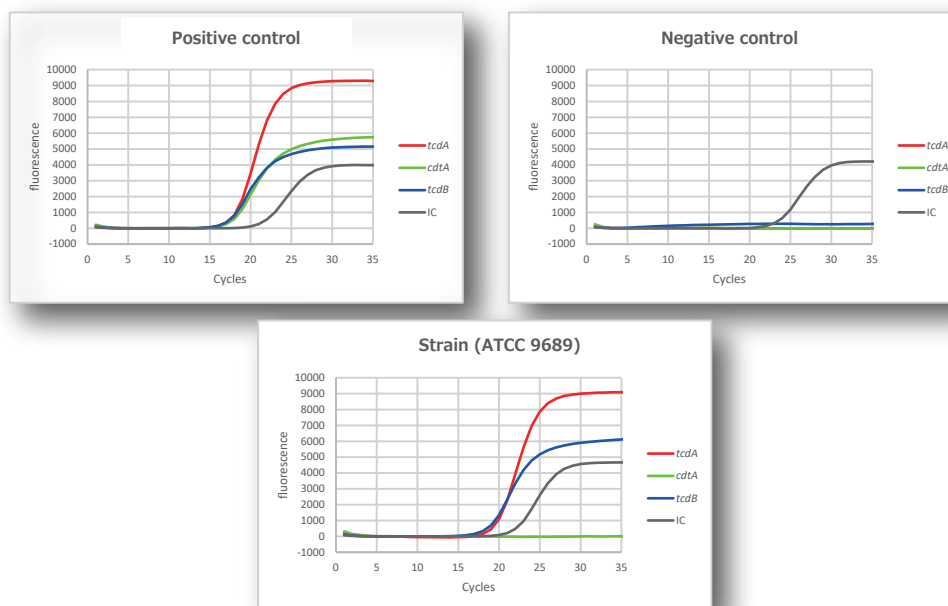
### Compatibility (Based on internal test)

- Thermo Fisher Scientific: QuantStudio5
- Bio-Rad: CFX Opus 96
- Roche Diagnostics: LightCycler® 96
- Roche Diagnostics: cobas® z 480※

※Color compensation (fluorescent dye calibration) is essential.

## Results

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



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<br>Target genes : <i>vanA</i> , <i>vanB</i> , <i>vanC</i> , IC                                                                       | 30 rxns        | -25~-20 °C | 07440-96    |
| CicaGeneus™ MRSA Related Gene Real Time PCR Detection KIT<br>Target genes : <i>femA</i> , <i>mecA</i> , <i>blaZ</i> , IC                                                                                | 30 rxns        | -25~-20 °C | 07512-96    |
| CicaGeneus™ ESBL Genotype Real Time PCR Detection KIT<br>Target genes : ( <i>TEM</i> , <i>SHV</i> , <i>CTX-M-1</i> , <i>CTX-M-9</i> , <i>CTX-M-2</i> or 8 or 25, <i>GES</i> (ESBL)) group, IC           | 30 rxns        | -25~-20 °C | 07498-96    |
| CicaGeneus™ Carbapenemase Genotype Real Time PCR Detection KIT<br>Target genes : ( <i>IMP-1</i> or 2, <i>VIM</i> , <i>KPC</i> , <i>NDM</i> , <i>OXA-48</i> -like, <i>GES</i> (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!

