## ○ Plant

## ● Tomato Yellow Leaf Curl virus

Tomato yellow leaf curl disease is one of the most important plant diseases causing serious damage to tomato cultivation worldwide. In this study, the causative agent, Tomato yellow leaf curl virus (TYLCV), was rapidly detected using ultra-rapid real-time PCR with SYBR® Green I.

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### ○ Instruments and Reagents

- GeneSoC® mini R
- GeneSoC® ini PCR chips
- GeneSoC® Master Mix
- SYBR® Green I Nucleic Acid Stain (Lonza)

### ○ Primers

TYLCVF/TYLCVR (Plant Dis. 2011 Feb;95(2):120-125)

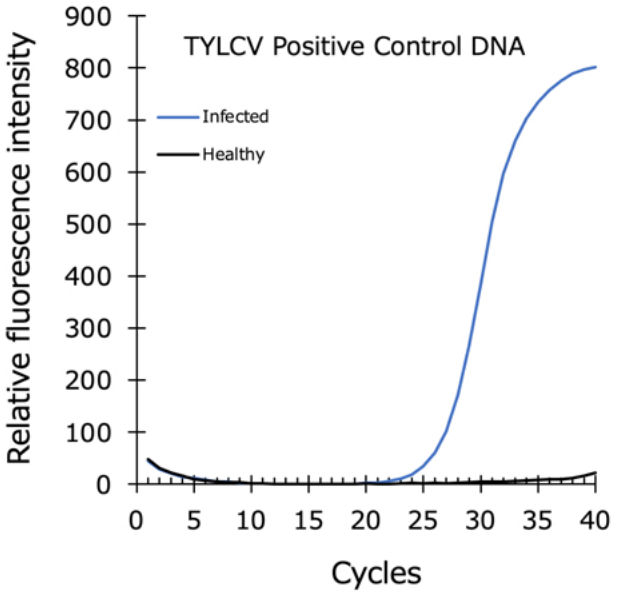
### ○ Sample

Crude extract of tomato leaves prepared using the Simple-Direct-Tube (SDT) method

※ The SDT method is a technique developed by the Laboratory of Plant Pathology, Utsunomiya University, for rapid and simple extraction of nucleic acids (RNA/DNA) from virus particles in infected plant tissues.
Reference: J Virol Methods. 2005 Apr;125(1):67–73.

### Related Products

- Ultra-rapid real-time PCR system GeneSoC® mini R
- GeneSoC® mini PCR chips
- GeneSoC® PCR Master Mix




### ○ PCR Protocol

| | Temp.(°C) | Time(sec) | Cycle |
|---|---|---|---|
| RT | — | — | 1 |
| HS | 96 | 10 | 1 |
| DN | 96 | 4 | 40 |
| AE | 64 | 10 | |

(Time required: approx. 12.5 minutes)

- HS：Hot Start
- DN：Denature
- AE：Annealing / Extension

※ For more detailed experimental conditions, please contact us