**foodproof®**

**E. coli O157 Detection Kit**

Quick Reference Procedure

- 5'Nuclease -

Order no. R 302 10  

Version 5, April 2017

PCR kit for the qualitative detection of *E. coli* O157 DNA using real-time PCR instruments. Before starting, it is strongly recommended to read the entire product manual available on our website.

### PROGRAM SETUP

Program your real-time PCR instrument before setting up the PCR reactions. Select the following channels:

- **FAM** (*E. coli* O157) and **VIC** (Internal Control).

As an alternative to VIC, HEX can be used. For the PikoReal® 24, Yakima Yellow has to be selected.

For some real-time PCR instruments the probe quencher as well as the usage of a passive reference dye has to be specified. This kit contains probes with TAMRA as quencher and no passive reference dye.

### DATA INTERPRETATION

Verify results of positive (Control Template) and negative controls (H₂O), before interpreting sample results. Always compare samples to positive and negative control. Review data from each channel and interpret results as described in the table.

<table>
<thead>
<tr>
<th>FAM</th>
<th>VIC</th>
<th>Result Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>+ or -</td>
<td>Positive for <em>E. coli</em> O157</td>
</tr>
<tr>
<td>-</td>
<td>+</td>
<td>Negative for <em>E. coli</em> O157</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Invalid</td>
</tr>
</tbody>
</table>
### PREPARATION OF THE PCR MIX

Take appropriate precautions to prevent contamination, e.g. by using filter tips and wearing gloves. Thaw reagents, mix (do not vortex!), and briefly spin vials before opening.

1. **PREPARE PCR MIX**

   Add 18 µl of Master Mix (yellow cap), 1 µl Enzyme Solution (red cap) and 1 µl Internal Control (white cap) for each reaction to a suitable tube (n samples + 2 controls + at least one additional reaction to cover pipetting loss).

   Mix carefully but thoroughly by pipetting up and down.

2. **ADD PCR MIX**

   Pipet 20 µl of prepared PCR mix into each strip or plate well.

3. **ADD SAMPLES AND CONTROLS**

   Pipet 5 µl of samples, negative control (colorless cap) or Control Template (purple cap) into respective wells.

4. **SEAL**

   Seal strips/plate accurately.

5. **CENTRIFUGE**

   Briefly spin strips/plate in a suitable centrifuge.

6. **START REAL-TIME PCR RUN**

   Cycle samples as described above.