



# Technical Datasheet

**Analysis Name:** Detection of STEC by iQ-Check

**Method Number:** LI-00.768

**Scope of Application:** Raw material (different types of flour only), line and finished products samples of the following Nestlé food categories: chilled dairy, ambient/chilled/frozen culinary products, breakfast cereals and powdered beverages. It is not applicable to environmental samples and other food categories.

**Description:** A qualitative Real-Time PCR (RT-PCR) method, using the iQ-Check® Prep system, iQ-Check® VirX and/or iQ-Check® SerO II kit (Bio-Rad) for the detection of Shiga-toxic *Escherichia coli* (STEC). The VirX kit screens for the Shiga-toxin genes *stx1/stx2*. The SerO II kit will screen for the presence of the Top 7 STEC serotypes (O26, O45, O103, O111, O121, O145, and O157).

**Sample Weight Required:** 25 g (see above categories), 375g (flour only)

**Method Reference:** Microval certificate # 2021LR96

**Analytical Platform:** PCR

**Special Information:** Samples that screen positive for the *stx1/stx2* gene target will be considered as Presumptive Detected for STEC and will automatically undergo the Top 7 serogroup screening. If the sample is negative for all the Top 7 serogroups, the result will be Presumptive Detected/No Top 7. If the sample is positive for any of the Top 7 serogroups, the result will be Presumptive Detected/Top 7 Detected, with reporting of the detected serogroup(s). No cultural confirmation will be performed.

Analyte Reported	Unit of Measure	Limit of Detection at 50%	Results
STEC (Screening) Final	/25g /375g	Flour (25g) = 1.1 CFU/g Flour (375g) = 0.61 CFU/g Pizza (25g) = 0.4* CFU/g	Not Detected Presumptive Detected No Top 7 STEC Presumptive Detected Top 7 STEC
O-Group Identified	n/a	n/a	O26, O45, O103, O111, O121, O145, and/or O157

\* Pizza conducted as an estimated limit of detection at 50% (eLOD<sub>50</sub>) per ISO 16140-3:2021.