



VereBeef™

A **Lab-on-Chip (LOC) platform** that allows for qualitative detection, differentiation and identification of *Escherichia coli* O157:H7, Big 6 Non-O157 Shiga toxin-producing *E. coli* as well as *Salmonella* spp.

Speed

- Enrichment to results from 10 hours

Comprehensive

- Tests for *E. coli* O157:H7, Big 6 STEC and *Salmonella* spp.

Accurate

- Highly specific primers and probes
- Target probes replicated on microarray

Sensitive

- LOD within the range of 10^4 - 10^5 cfu/mL after enrichment
- 1cfu/test portion before enrichment

Mobile

- The VerePLEX™ Biosystem is designed to be portable

Flexible and Scalable

- Random access
- For higher throughput, up to 5 VerePLEX™ Biosystems can be configured as one unit

Targets

Escherichia coli

- **STEC** (stx1A, stx2A, eae)
- O157:H7
- O26
- O45
- O103
- O111
- O121
- O145

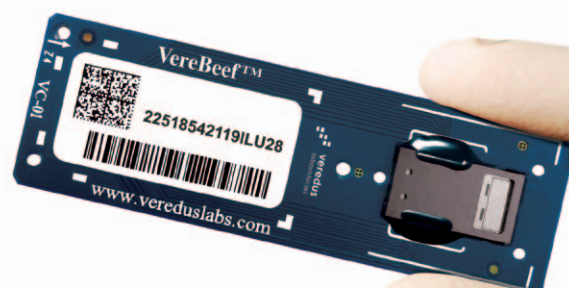
Salmonella

Sample Type

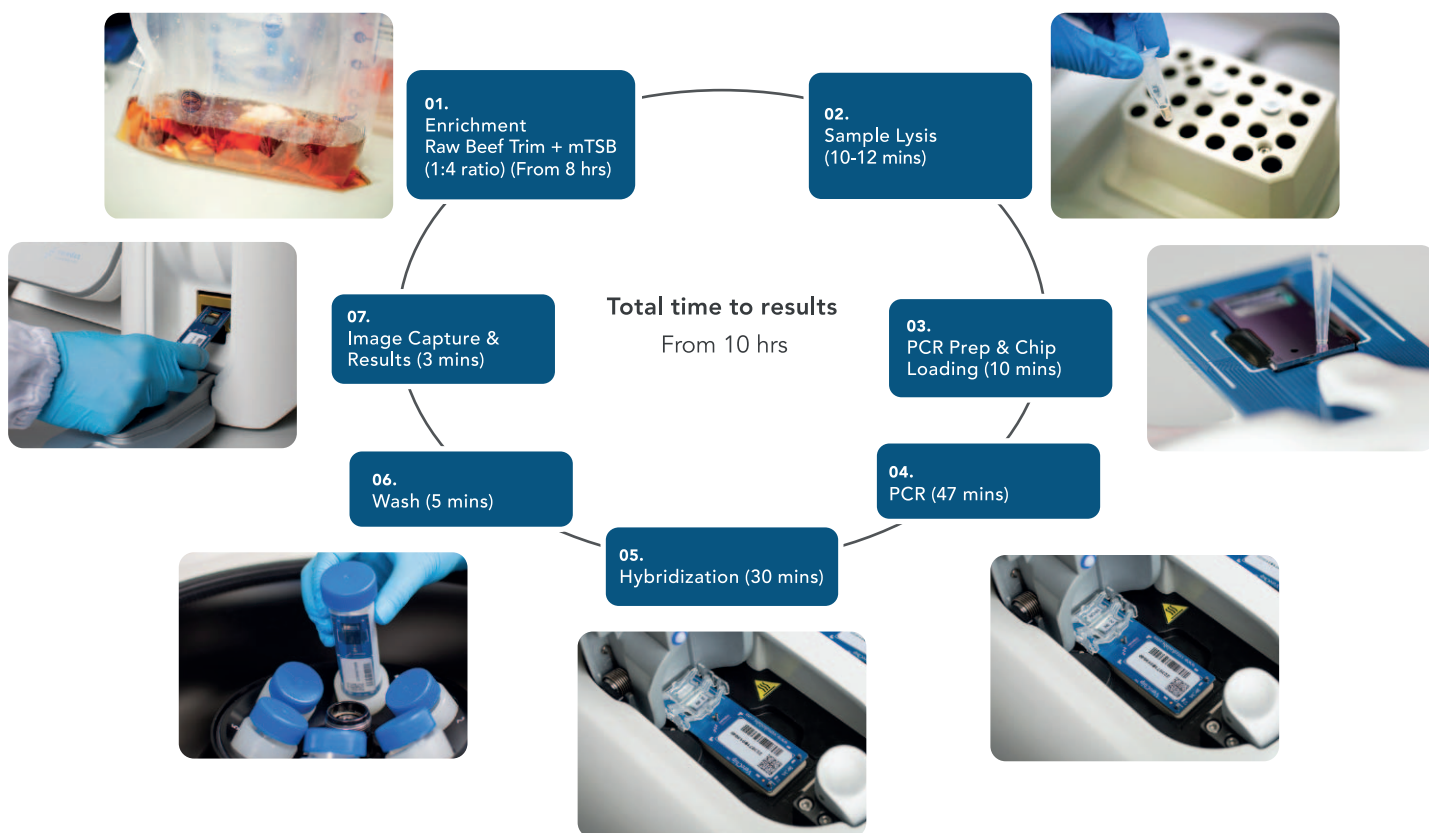
- Raw beef trim (25g, 325g, or 375g)

Features

- Multiplex assay: 11 targets, PCR and hybridization controls all in one test
- Enrichment time as low as 8 hrs for *E.coli* O157:H7 detection
- Excellent inclusivity / exclusivity



Workflow



Multiplexing Simplified



VerePLEX™ Biosystem combines molecular biology, microfluidics and microelectronics to bring the future of diagnostics and surveillance to you today. The VerePLEX™ Biosystem, along with the VereChip™, is a breakthrough innovation, integrating two powerful molecular biology technologies: PCR and Microarray.

Components:

- Temperature Control System
- Optical Reader
- Laptop
- Barcode Reader
- VerePLEX™ Biosystem Software