



Protect your brand with the most robust detection tools in the food industry

**Accuracy. Ease of use. Zero compromise.**



# SUITE OF DETECTION TOOLS FOR YOUR QUALITY MANAGEMENT PROGRAM



## VERIFLOW DNA SIGNATURE CAPTURING TECHNOLOGY

<b>DNA Amplification</b>	Proprietary reagents eliminate need for sample purification
<b>DNA Identification</b>	Proprietary DNA signature detection specifically targeting food pathogens
<b>Visualization of Results</b>	Proprietary vertical flow mediated visualization of results for easy interpretation



### FOOD SAFETY PORTFOLIO

- Veriflow® Salmonella species
- Veriflow® Listeria monocytogenes
- Veriflow® Listeria species
- Veriflow® Campylobacter
- Veriflow® Campylobacter Q
- Veriflow® E.coli O157:H7
- Veriflow® Listeria confectionary
- Veriflow® Salmonella peanut butter
- Veriflow® STEC
- Veriflow® Salmonella spice
- Veriflow® Salmonella Q (coming soon)
- Veriflow® Staphylococcus aureus (coming soon)

### FOOD QUALITY PORTFOLIO

- Veriflow® Alicyclobacillus (ACB)
- Veriflow® Campylobacter Q
- Veriflow® Salmonella Q (coming soon)
- Veriflow® Dekkera (coming soon)

## THE CHALLENGE

### HIGH STAKES IN FOOD PROTECTION CALLS FOR FASTER, MORE ROBUST TOOLS

New regulations, harsher penalties and numerous brand-threatening recalls have placed substantial pressures on food manufacturers. These market conditions require a paradigm change in food safety and quality monitoring programs.

Today's food safety testing for rapid methods are limited by several factors – high capital costs, multi-step enrichment processes, cumbersome sample preparation, long turn around times and unreliable, inaccurate results. These limitations can cause a cascade of significant issues – the potential for facility cross-contamination, production inefficiencies, inventory holds or shipping product at risk, loss of brand value, litigation, and even criminal liability.

## THE TECHNOLOGY

### PROVEN PLATFORM DELIVERS ACCURACY, SPEED, AND SENSITIVITY

The Veriflow suite of food protection tools is powered by game-changing technology that combines proven diagnostic principles for microbial detection and innovative, first-in-class scientific approaches. The robust platform performs at the highest levels of accuracy in even the most challenging matrices, with simplified sample preparation.

Veriflow technology offers unparalleled performance combined with rapid detection of pathogens and spoilage organisms. The technology is AOAC International Certified for foodborne pathogen detection and has been widely adopted by food manufacturers, global 3rd party testing labs and, more recently premium wineries and breweries around the world.

## THE SYSTEM

### SIMPLE AND COST EFFECTIVE FOR ON-SITE TESTING AND RESULTS

The system is comprised of a small customized thermocycler, pre-aliquoted PCR reagent tubes, and proprietary buffers and hand-held cassettes. Qualitative next-day results for a wide variety of microorganisms are garnered with less than 15 minutes of end user hands-on time per sample.

The Veriflow system is ideally suited for onsite implementation – with a modest capital investment and affordable per test cost. Sample collection and prep are simple and can be completed by existing staff with minimal training.

## THE BENEFITS

### PROTECT YOUR BRAND WITH PROVEN ACCURACY AND UNMATCHED EASE OF USE

Veriflow technology is proven to provide rapid, accurate, actionable detection of pathogen and spoilage indicators – with no compromises on ease of use and affordability. The technology is easily deployed on-site allowing you to find issues early, take corrective action, and prevent large-scale contamination. Timely, accurate results reduce hold times for finished product and alleviate the need to ship at risk. This technology enables early action at critical control points to increase your confidence in product quality and brand integrity.

- ▶ Unsurpassed reliability across a wide spectrum of microbes
- ▶ Robust detection in both simple and complex matrices
- ▶ Sensitive and accurate to ensure confidence in your processes and end products
- ▶ Reduces hold times and eliminates the need to ship at risk
- ▶ Saves money and resources throughout your process
- ▶ Meets the changing needs of the industry and allows you to protect your brand image

## CHALLENGING MATRICES

Veriflow has been validated on over 70 different foods, raw materials and surfaces including the most challenging and complex matrices.



SPICES



NUTRACEUTICALS



CONFECTIONARY



CIDERS AND JUICES



NUT BUTTERS



CARCASS RINSATES



FISH



# STANDARD TEST PROTOCOL

## ENRICH

After 18-24 hours enrichment, transfer 500 µl sample to provided 1.5 ml tube. Heat sample for 10 minutes, then allow to cool to room temperature.

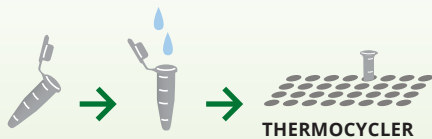
### START



## AMPLIFY

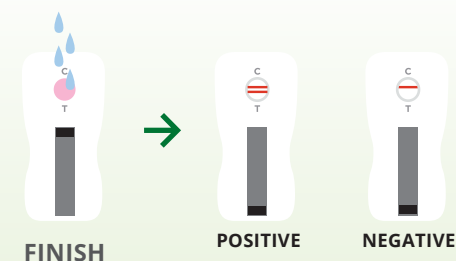
Transfer 5 µl of heat inactivated sample into provided reagent tube. Place tube into thermocycler and run program.

### 90 MINUTE AMPLIFICATION



## DETECT

Remove reagent tube from thermocycler. Dispense reagent tube contents onto test cassette window. Wait 3 minutes and retract test cassette to reveal test results. One line indicates a negative result, two lines indicate a positive result.



## FEATURES

- Advanced DNA capturing signature technology
- Based on PCR testing
- Unique proprietary reagents

- Easy sample preparation
- 1-step enrichment
- Rapid test results
- Easy to interpret

- Low entry cost for equipment
- Small equipment footprint
- High capacity and multiple heating blocks
- Cost effective and affordable

## BENEFITS

- High sensitivity and specificity
- No DNA purification required
- Compatibility with multiple and challenging matrices

- Little hands-on time
- Low training cost/time
- All staff can perform the test
- Ability to act on the results quickly

- In-house testing more feasible
- Easy to standardize and implement
- Increased efficiency
- No requirement for additional lab space
- Can run multiple targets at the same time

ITEM #	DESCRIPTION	SIZE
IS1020	 Veriflow Complete Test System Includes: Mastermix Reagents, Cassettes, 1.5 ml Sample Tubes, Media	1 Kit 24 Tests
ISTC002	 Veriflow Thermocycler	1 Unit
IS0904	 Veriflow Loading Tray	1 Unit
ISR001	 Veriflow Reader	1 Unit

**For more information or to place an order, please contact Invisible Sentinel at 215.966.6118 or [www.invisiblesentinel.com](http://www.invisiblesentinel.com)**

Invisible Sentinel, a global molecular solutions company, is dedicated to providing first-in-class microbial detection tools. The company's core technology, Veriflow, is a patented, game-changing platform that integrates molecular diagnostics, antibody design, and immunoassays. Veriflow has been applied across multiple industries including food safety and beverage quality.

*Invisible Sentinel® and Veriflow® are registered trademarks of Invisible Sentinel, Inc, of Philadelphia, PA. U.S. Patent No. 8,183,059 and other patents pending. Purchase and use of this product is subject to Invisible Sentinel's Terms and Conditions of Sale located at <http://www.invisiblesentinel.com>. #ISMA003*

