Faster, Easier, Better
The iQ-Check™ system takes full advantage of real-time PCR to provide a faster and reliable solution in food pathogen testing. Designed with quality control and service laboratories in mind, iQ-Check helps guarantee the best microbiological control of food products and the industrial environment. Comprising a broad range of tests and instruments to meet different needs, iQ-Check is a flexible and open system allowing industrial microbiology laboratories fast control and reaction in their HACCP procedures.

### Proven Technology

Based on gene amplification through the polymerase chain reaction (PCR) and real-time detection, iQ-Check kits use DNA primers and fluorescent probes specific to the target organism. Detection of a fluorescent signal for the targeted amplified sequences indicates the presence of the pathogen in the sample being tested. For best accuracy, the test has been designed as a multiplex assay: the probes and primers for the target DNA and the internal control are in the same reaction mix, labeled with different fluorophores. The internal control assesses the efficiency of each amplification reaction by determining the presence of inhibitory factors, and ensuring reliability of negative results.

### Truly Fast Results

Speed up the release of finished products and in-process batches. Due to the high sensitivity and specificity of real-time PCR, a single overnight enrichment is sufficient to obtain results equivalent or better than ISO or other reference methods. Protocols are available with results in as little as 12 hours.
Complete Solution

Developed as flexible and open, the iQ-Check solution can be manual or automated. A single sample or as many as 94 samples can be run on either smaller instrument (48-wells) or higher throughput instrument (96-wells).

Each of Bio-Rad's real-time PCR instruments provides a unique modular design coupled with high-resolution optics for target sequence detection via fluorescent probes chemistry.

By pairing proven real-time PCR instrumentation, easy-to-use software with powerful PCR kits and media from Bio-Rad, you can consistently obtain high-quality real-time PCR data for all food and environmental testing applications. Automation brings additional traceability and confidence.

Manual Solution

Four-Step Protocol

1. Sample enrichment
2. DNA extraction - Collect enriched sample and lyse cells
3. PCR preparation + amplification - Add extracted DNA to PCR wells
4. Automated analysis, interpretation and report

Automated Solution

iQ-Check Prep Solution Workflow

1. Load your enriched samples on a deepwell plate according to worklist
2. Load consumables, reagents and samples, and run the iQ-Check Prep system
3. Run real-time PCR and get your results
iQ-Check™ Prep Solution

iQ-Check Prep is a liquid handling platform performing DNA extraction and PCR plate set-up. Designed for the use of our full range of iQ-Check food pathogen detection kits and the CFX96 Deep Well™ real-time PCR system, it provides a completely integrated automated solution for food pathogen testing.

Optimal ease of use and traceability is achieved by using the CFX Manager™ Software IDE.

The iQ-Check Prep solution provides increased confidence, high reproducibility and robustness to routine testing labs. It fits seamlessly in laboratory workflow and is an ideal solution for medium to high throughput testing laboratories.

Throughput

Your laboratory performs up to 250 tests in an 8 hour shift

- Including sample preparation and reload time, one iQ-Check Prep instrument with one CFX96 Deep Well (real-time PCR instrument) is needed

Your laboratory performs greater than 500 tests in an 8 hour shift

- Simply add one more CFX instrument

MiniOpticon™ Real-Time PCR Detection System

The MiniOpticon system is one of the smallest, most portable systems available for real-time PCR applications.

- The 2-color multiplexing capability allows detection of a range of fluorophores
- The MiniOpticon system incorporates a fixed array of 48 LEDs into an optical design with no moving parts
- Can run up to 48 tests

CFX96 Deep Well™ Real-Time PCR Detection System

The CFX96 Deep Well system delivers sensitive 5-color multiplex performance in a 96-well design.

- All components for fluorophore excitation and detection are brought directly to each well by the advanced optical design of the photonics shuttle
- Can run up to 96 tests
<table>
<thead>
<tr>
<th>iQ-Check Method</th>
<th>AOAC</th>
<th>NF VALIDATION</th>
<th>Health Canada</th>
<th>Nordval</th>
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* No Objection Letter delivered from USDA

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**MiniOpticon™ CFX96 Deep Well™**

**Base Thermal Cycler**
- MJ Mini™
- MJ Mini Touch

**Sample Capacity**
- 48 wells
- 96 wells

**Light Source**
- 48 blue-green LEDs
- 6 filtered LEDs in optics shuttle

**Optical Detection**
- 2 photodiodes
- 6 photodiodes in optics shuttle

**Excitation Range**
- 470-500 nm
- 450-684 nm

**Detection Range**
- 523-700 nm
- 510-730 nm

**Multiplex Capacity**
- Up to 2 targets
- Up to 5 targets

**Serial Connectivity Options**
- 1 unit
- Up to 4 units from 1 PC

**Maximum Ramp Rate**
- 2.5°C/sec
- 2.5°C/sec

**Gradient Capability**
- Yes
- Yes

**Gradient Range**
- 35-99°C
- 30-100°C

**Temperature Differential Range**
- 16°C
- 1-24°C

**Dimensions (W x D x H)**
- 18 x 32 x 33 cm
- 33 x 46 x 36 cm

**Weight**
- 6.8 kg
- 21.4 kg

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**CFX Manager™ Software - Industrial Diagnostic Edition**

The CFX Manager Software controls all operations on the CFX96 and the MiniOpticon real-time PCR detection systems and integrates the iQ-Check Prep operation setup.

- **Easy to use**
- **Integration of the automated sample preparation, automated analysis** and full interpretation of all iQ-Check results, in addition to complete access to amplification graphs and data
- **Data can be imported/exported from/to a LIMS**
- **Reports can be archived**
- **The same computer can run up to 4 CFX96 instruments or 1 MiniOpticon**
Ordering Information

Catalog #  Description

Reagents

IQ-Check Kits
357-8135  IQ-Check™ Campylobacter kit, 96 reactions
357-8137  IQ-Check™ Cronobacter spp. kit, 96 reactions
357-8114  IQ-Check™ E.coli O157:H7 Kit, 96 reactions
357-8124  IQ-Check™ Listeria monocytogenes Kit II, 96 reactions
357-8113  IQ-Check™ Listeria spp. kit, 96 reactions
357-8123  IQ-Check™ Salmonella Kit II, 96 reactions
357-8142  IQ-Check™ S. Enteritidis kit, 96 reactions
357-8139  IQ-Check™ STEC V/K Kit, 96 reactions
357-8140  IQ-Check™ STEC SerO kit, 32 reactions

Media for Sample Enrichment
355-4712  RAPID™ Salmonella Capsules, 100
356-4710  RAPID™ Salmonella Capsules, 10 x conc., 100
357-8114  iQ-Check™ STEC II kit, 96 reactions
357-8124  iQ-Check™ Listeria monocytogenes kit II, 96 reactions
358-4709  iQ-Check™ STEC V/K kit, 96 reactions
358-4710  iQ-Check™ STEC SerO kit, 32 reactions
356-4712  iQ-Check™ STEC V/K kit, 96 reactions
356-4710  iQ-Check™ STEC SerO kit, 32 reactions
355-3454  TCS (Tryptone-casein-soya), 225 ml x 6 bottles
355-3455  TCS (Tryptone-casein-soya), 10 ml x 25 tubes
355-3503  LSI (Listeriolysin oligo broth), 225 ml x 6 bottles
355-3503  LSI, 5 ml x 2 bags
355-4604  Fraser ½ Base, 500 g
355-4604  Fraser ½ Base, 500 g
355-4616  Fraser ½ broth, 225 ml x 6 bottles
355-4616  Fraser ½ broth, 3 ml x 4 bags
355-4654  Fraser ½ broth, 5 ml x 2 bags
355-4654  Fraser ½ broth, 5 ml x 2 bags
356-4684  Buffered Peptone Water, 500 g
355-5794  Buffered Peptone Water, 3 l x 4 bags
355-5792  Buffered Peptone Water, 225 ml x 6 bottles
355-5792  Buffered Peptone Water, 225 ml x 6 bottles
355-3503  TCS (Tryptone-casein-soya), 10 ml x 25 tubes
355-5792  Buffered Peptone Water, 225 ml x 6 bottles
355-5792  Buffered Peptone Water, 225 ml x 6 bottles
355-3454  TCS (Tryptone-casein-soya), 10 ml x 25 tubes
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Chromogenic Media for Confirmation
356-4748  RAPID/E.coli O157:H7 agar, 100 g
356-4610  Novobiocin Supplement for RAPID/E.coli O157:H7, 1 g bottle
356-3960  RAPID/Listeria spp. agar, 90 mm x 20 dishes
356-4744  RAPID/Listeria spp. agar, 500 g
356-4745  RAPID/Listeria spp. agar, supplement 1, 10 vials
356-4746  RAPID/Listeria spp. agar, supplement 2, 10 vials
356-3964  RAPID/L/mono agar, 90 mm x 120 dishes
356-4293  RAPID/L/mono agar, Base 500 g
356-4294  RAPID/L/mono agar, Supplement, 10 vials (1 vial qsp 500 ml)
356-4746  RAPID/L/mono agar, Supplement, 2, 10 vials (1 vial qsp 500 ml)
356-3971  RAPID/Sakazakii agar, 90 mm x 20 dishes
356-3963  RAPID/Salmonella agar, 90 mm x 120 dishes
356-4705  RAPID/Salmonella agar, 500 g
356-4709  RAPID/Salmonella Capsules, 10 x conc., 100
356-4710  RAPID/Salmonella Capsules, 100
356-4712  RAPID/Salmonella Supplement, 1 box qsp 100 analysis

(1) For items ordered in North America, the following catalog #s apply:
MILL-4851XTU, TLS-0851XTU, TCS-0803XTU, 224-0110XTU, HSP-9655XTU

(2) For items ordered in Europe, the following catalog #s apply:
355/MILL-4851, 35TLS0851, 35TCS0803, 352240110, 35HSP-9655

Catalog #  Description

Instruments
359-4990  Industrial Diagnostic CFX96 Deep Well® Real-Time PCR
359-3995  Industrial Diagnostic MiniOpticon® Real-Time PCR
359-3893  CFX Manager® Software Industrial Diagnostic Edition
359-4910  iQ-Check Prep system configuration

Consumables for CFX96 Deep Well® and MiniOpticon® Systems
HSP-9655  48-well low-profile 8-tube PCR plates, low profile, white shell, white wells, x 50
MILL-4851  48-well low-profile unskirted PCR plates, white, x 50
MBB-1001  Microseal B film, optically clear adhesive seal, x 100
TLS-0851  Low-profile 0.2 ml PCR 8-tube strips without caps, thin-walled, white, x 120
tcs-0803  Optical flat 8-cap strips, for 0.2 ml tubes and plates, ultraclear, x 120

Consumables for DNA Extraction
224-0110  Corotubes, 1.5 ml, with installed O-ring screwcaps, sterilized, x 500
359-4900  1 ml deepwell plate, 96 wells, x 50
360-0040  X-pelence Films™, x 100
359-3977  X-pelence Films™, x 100

Consumables for iQ-Check Prep
359-4900  1 ml Deep Well plates, x 50
359-4901  5 ml Tube for PCR Mix, x 50
359-4902  Tips 50 µl, x 5760
359-4903  Tips 1000 µl, x 3840
359-4904  Reservoir 60 ml, x 28
HSP-9655  Hard Shell PCR plate with barcode (HSP-9655XTU for North America)

Kit Components

iQ-Check kits are complete and ready to use, including reagents for sample preparation:

- Lysis reagent for DNA extraction
- Fluorescent probes
- PCR amplification mix, including internal amplification control
- Positive and negative controls

Purchase of this product includes an immunity from suit under patents specified in the product insert to use only the amount purchased solely in food testing, environmental testing, industrial microbiology and also for the purchaser’s own internal research. No other patent rights (such as 5’ Nuclease Process patent rights) are conveyed expressly, by implication, or by estoppel. Further information on purchasing licenses may be obtained by contacting the Director of Licensing, Life Technologies, 850 Lincoln Centre Drive, Foster City, California 94404, USA.