

Legionella Monitoring

Make Sure Everything is Under Control

- A Full Product Range for Full Control
- User-Friendly Products
- Products in Accordance with Standards
- Suitable for a Large-Type of Sample

Protect Life from its Source

BIO-RAD

Legionella Monitoring

Bio-Rad's Product Range: the Most Complete Risk Assessment

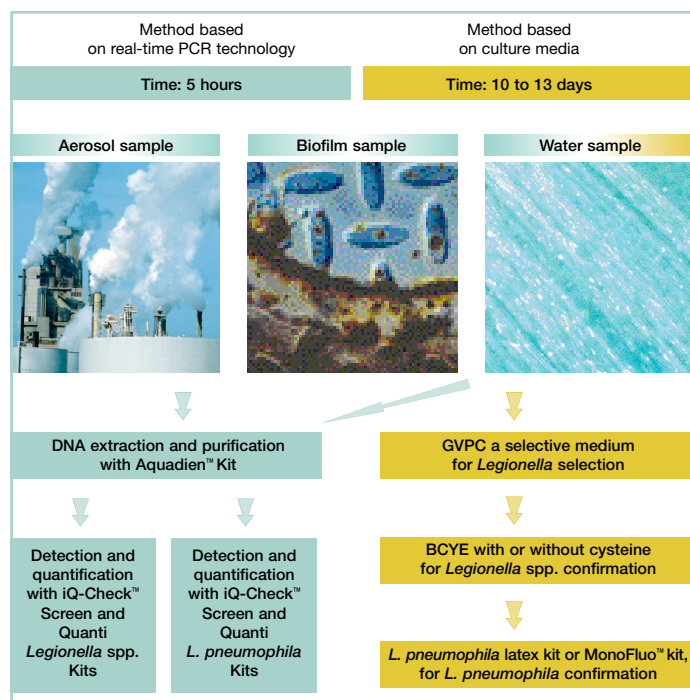
Two kinds of methods for accurate and complementary risk management.

Bio-Rad provides a complete media range and kits complying with standards and regulations, but also an integrated solution for *Legionella* risk management based on iQ-Check™ real-time PCR technology, for detection and quantification of *Legionella* spp. and *L. pneumophila*.

These *Legionella* testing products are suitable for water supply systems, water intended for human consumption, hot water for sanitation purposes, water for industrial use, natural mineral water for thermal purposes, water for recreational activities... but also for biofilms and aerosol samples.



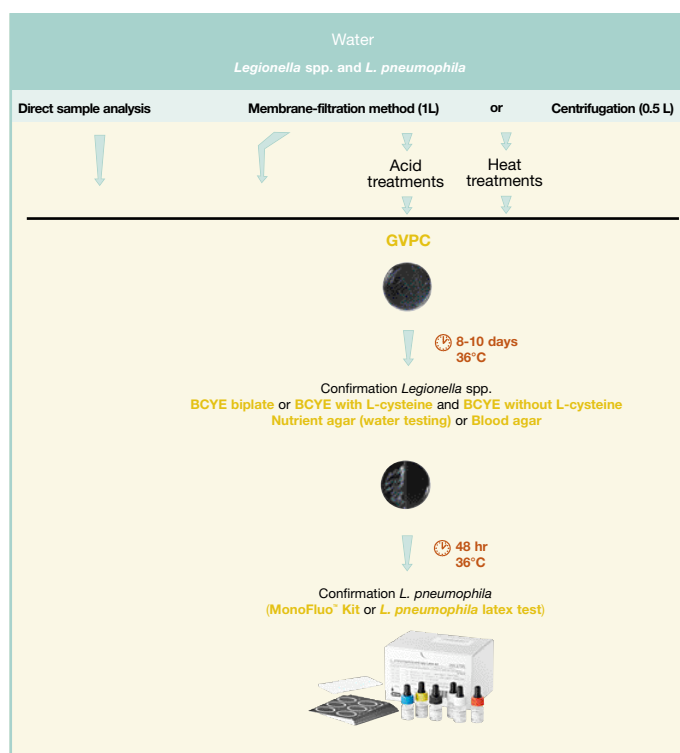
BCYE Biplate Agar Medium



Standard Media and Regulated Detection

Legionella are nutritionally fastidious growing organisms. The Charcoal Yeast Extract Base (BCYE) medium enables growth and isolation of *Legionella* species. The GVPC medium contains BCYE supplemented with antibiotics for inhibition of interfering flora growth. *Legionella* require L-cysteine for growth. The Bio-Rad BCYE biplate containing half medium supplemented with L-cysteine and half without L-cysteine provides better confirmation of *Legionella* species and *Legionella pneumophila*.

Rapid and easy to use, the Bio-Rad latex kit provides separate identification of *Legionella pneumophila* in serogroup 1 and serogroups 2-15 and the 10 most common species and serogroups of *Legionella*, from clinically or environmentally isolated strains.



Fast and Reliable Results with iQ-Check™ *Legionella* Kits

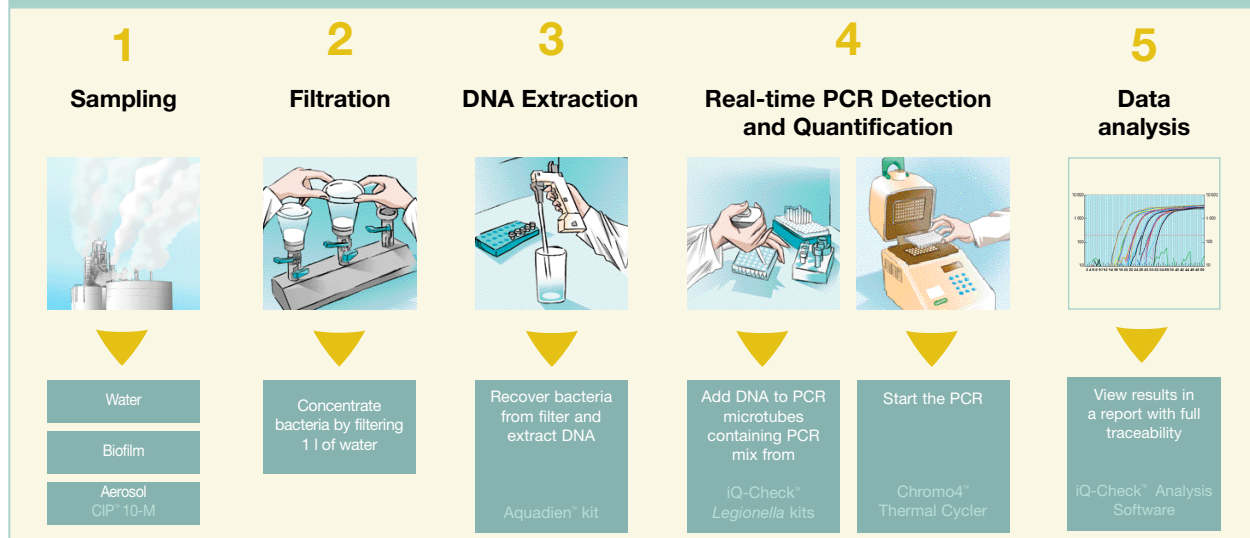
The real-time PCR method avoids the disadvantages of culture media and gives results in the same day of the sampling. In addition, real-time PCR ensures reliable and reproducible results by detecting all *Legionella* regardless of different uncultivable physiological statuses (viable but non cultivable, intra-amoebaean, etc.). Early treatment and fast, accurate follow-up of efficiency is now possible.

Various Application Fields

- Parties involved in water supply (equipment and supply systems, maintenance and treatment of supplies and installations, etc.)
- Industrial water, especially cooling tower monitoring
- Health establishments (thermal baths, hospitals, nursing homes, etc.)
- Public and travel buildings (museums, hotels, etc.)
- Recreational water
- Service labs



Protocol



Aquadien™ Kit: DNA Extraction, a Crucial Step for High-Performance PCR Results

- High-yield DNA extraction and purification
- Only 4 steps to the protocol
- Less hand-work for technicians
- Suitable for all types of water including cooling towers, hot sanitary water and spas
- Optimized protocols for “dirty water”
- Specific Technical Notes for detection of *Legionella* in biofilm samples (n°16995) and in amoebae (n°16225)
- Suitable for other waterborne pathogens prior to PCR analysis



Aquadien™ kit



iQ-Check™ *Legionella* Kits: Specific and Sensitive Results

The target DNA is specifically amplified with primers then detected by highly specific fluorescent probes. The increasing fluorescence emitted is monitored and recorded in real-time by the Bio-Rad thermocycler systems. The iQ-Check Analysis software provides an automatic interpretation of the results. A set of standards provided with iQ-Check Quanti *Legionella* kits gives direct quantification with no extra steps.

For optimum PCR results, a ready-to-use amplification mix, fluorescent probes and positive/negative DNA controls are provided with the kits. Specific amplification is controlled with an internal control simultaneously detected with a different probe labelled with a second dye. Potential PCR inhibitions are thus fully monitored.

Key Benefits of the iQ-Check™ *Legionella* Method

Fast

- Just 5 hours from sample to results
- No confirmation needed

Reliable

- Detects all *Legionella* including VBNC and intra-amoebean
- Positive/negative DNA controls and internal control included
- No post-PCR processing to avoid contamination risk

Convenient

- Ready-to-use reagents
- All reagents provided with the kits
- Easy result interpretation with the iQ-Check™ Analysis Software

Adaptable to all Routine Throughputs

- 96-well format
- Integrated Bio-Rad thermocyclers and software
- Result analysis takes only few seconds

High Performances

- Highly reproducible and repeatable
- AFNOR T90-471 standard validated
- Gene-specific primers and probes for maximum specificity
- Optimized reagents
- Calibrated quantification standards for accurate quantitative results

Inside Tiny Aerosols Droplets: CIP10-M* Air Sampler

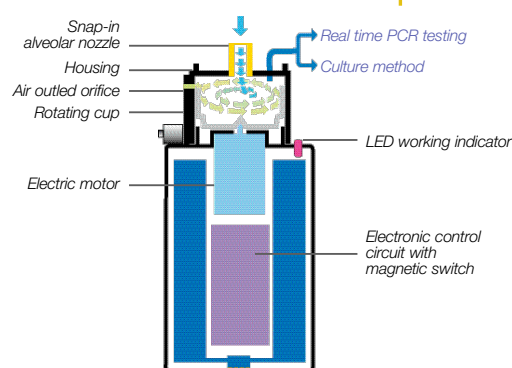
The combination of the CIP10-M kit and the iQ-Check *Legionella* method is the fastest and most ideal way of measuring real on-site worker exposure to *Legionella*.

Monitoring Application Field

- Near cooling towers
- Hot sanitary water systems
- Whirlpool baths
- Natural spa baths
- Fountains
- Waste water treatment plants



CIP10-M Air Sampler



Features

- Flow rate of 10 L.min⁻¹
- Single-piece architecture, light and compact
- Rechargeable internal batteries (more than 40 hrs autonomy)
- Autoclavable accessories

An Application Note n°16186 is available on request.

Key Benefits

- Simulates human breath
- Ergonomic
- Portable
- Free of cross contamination
- Suitable for both culture media (on going studies) and real-time PCR analysis

Ordering information

Catalog #	Description	Packaging
Classical Culture Media Product Range (ISO 11731 and ISO 11731-2)		
356-3718	BCYE Biplate/Agar	90 mm x 20 dishes
356-3720	BCYE with L-Cysteine/Agar	90 mm x 20 dishes
356-3722	BCYE without L-Cysteine/Agar	90 mm x 20 dishes
356-3804	Columbia + Horse Blood/Agar	90 mm x 20 dishes
356-3784	Columbia + Sheep Blood/Agar	90 mm x 20 dishes
356-3719	GVPC/Agar	90 mm x 100 dishes
356-3717	GVPC/Agar	90 mm x 20 dishes
356-2790	<i>Legionella pneumophila</i> latex Kit (sg 1, 2-15)	1 pack of 50 tests
356-2795	<i>Legionella pneumophila</i> and spp. latex Kit	1 pack of 50 tests
166-0500	Long-Wave UV Lamp (4 AA batteries required)	1 unit
353-2514	MonoFluo™ Kit <i>Legionella pneumophila</i>	24 tests
356-3786	Nutrient Agar (for Water Testing)	90 mm x 20 dishes
355-0717	Portable UV Observation Chamber (without Wood Lamp)	1 unit
355-0718	Wood Lamp (6-watt UV tube)	1 unit
Real-Time PCR Product Range		
357-8121	Aquadien™ Kit	100 tests
357-8102	iQ-Check™ Quanti <i>Legionella</i> spp. Kit	96 tests
357-8103	iQ-Check™ Quanti <i>L. pneumophila</i> Kit	96 tests
357-8104	iQ-Check™ Screen <i>Legionella</i> spp. Kit	96 tests
357-8105	iQ-Check™ Screen <i>L. pneumophila</i> Kit	96 tests
Aerosol Sampling		
357-8125	Aquadien™ Lysis Solution, to collect and lyse micro-organisms captured from droplets	1 bottle/100 samples
359-3084	CIP10-M 220 V Kit*, containing 1 CIP10-M sampler, 3 rotating cups, 3 snap-in alveolar nozzles, 3 cup chambers, 1 harness with back attaches, a 220 V charger, 1 magnet	Kit in a plastic case
359-3094	CIP10-M 110 V Kit*, containing 1 CIP10-M sampler, 3 rotating cups, 3 snap-in alveolar nozzles, 3 cup chambers, 1 harness with back attaches, a 110 V charger, 1 magnet	Kit in a plastic case

* Each accessory is available separately; for ordering, please contact your local sales representative



Bio-Rad
Laboratories, Inc.

**Life Science
Group**

Web site www.bio-rad.com **USA** 800 4BIORAD **Australia** 61 02 9914 2800 **Austria** 43 (0) 1 877 89 01 **Belgium** 09 385 55 11 **Brazil** 55 21 3237 9400
Canada 905 712 2771 **China** 86 21 6305 2255 **Czech Republic** 420 241 430 532 **Denmark** 44 52 10 00 **Finland** 09 804 22 00 **France** 33 1 47 95 62 59
Germany 49 (0) 89 318 84 0 **Greece** 30 210 777 4396 **Hong Kong** 852 2789 3300 **Hungary** 36 1 455 8800 **India** 91 124 2398 112/113/114
Israel 03 951 4127 **Italy** 39 02 216 091 **Japan** 03 5811 6270 **Korea** 82 2 3473 4460 **Latin America** 305 894 5960 **Mexico** 52 555 200 0520
The Netherlands 31 318 540 666 **New Zealand** 64 9 415 2280 **Norway** 23 38 41 30 **Poland** 48 22 331 99 99 **Portugal** 351 21 472 7700
Romania 4021 210 1703 **Russia** 7 095 721 1404 **Singapore** 65 6415 3188 **South Africa** 27 11 442 8508 **Spain** 34 91 590 5200 **Sweden** 46 8 555 12700
Switzerland 41 (0) 61 717 95 55 **Taiwan** 886 2 2578 7189 **Thailand** 662 651 8311 **United Kingdom** 44 20 8328 2000 **Vietnam** 848 823 6757
