



Singlepath[®] Listeria

For the rapid detection of
Listeria in food and environmental samples



Singlepath[®] Listeria

Listeria monocytogenes is one of the most widely distributed foodborne pathogen in the world and is responsible for severe infections in immunocompromised persons, pregnant women and neonates.

Listerial infections can result in mild gastroenteritis, sepsis, meningitis, encephalitis or abortion. As a result of the ubiquitous distribution of *Listeria* and their capability to grow at refrigerator temperatures (2 °C to 8 °C), food products constitute one of the main sources of infection. Food regulating laws in many countries specify the total absence of *Listeria monocytogenes*. In the conduct of risk-related quality controls in food and in the context of state-of-the-art hygiene-status monitoring procedures, tests should be run not only for *L.monocytogenes*, but also for the *Listeria* genus in general.

The presence of *Listeria* – in particular of *L.innocua* – is an indicator for critical hygienic conditions in the production process. The drastic increase in the incidence of food infection caused by *Listeria* demands reliable and

rapid methods of detection. Apart from traditional culture methods, immunological techniques are becoming more and more popular with users due to their better specificity and sensitivity. At the moment the dominant technique to control food products regarding *Listeria* are traditional methods based on culture media.

Rapid methods, especially high convenience tests such as immunochromatographic “one step” devices are of more and more interest to food producers and distributors as well as to public health authorities. Users generally expect rapid tests to be sufficiently sensitive and specific, user friendly and also not too expensive. DNA probes are possibly more specific than antibody-based tests but they do not fulfil the other user criteria.

Customers that accept rapid methods typically prefer antibody-based tests. The new Singlepath[®] *Listeria* immunochromatographic test offers all these benefits and makes testing for the bacteria fast, reliable and convenient.



Your benefits

Reliable	As sensitive as the official culture media method. Provides accurate results: Sensitivity 98 %, specificity 100 %.
Fast	Result in just 25 minutes.
Ease-of-use	One-step format avoids working errors during handling.
Convenient	Simply add sample and read off the result.
Safe	Clear and distinct positive or negative test results with a built-in positive control.
Economical	Rapid results save labour and inventory costs and reduce labour-intensive plating methods. No capital investment required for example for instrumentation such as automated systems.

Flow-diagram of Singlepath® GLISA Listeria test procedure

- Sample 25g/ml in 225 ml 1/2 conc. Fraser broth or buffered LEB, L-PALCAM broth or UVM-I broth
- Incubate at 28 – 30°C for 18 – 24 h

- Inoculate 0.1 ml into 10 ml buffered LEB or Fraser broth, L-PALCAM broth or UVM-II broth
- Incubate at 28 – 30°C for 18 – 24 h

- Pipette 1 – 2 ml enriched culture into Eppendorf Cup
- Boil at 95 °C for 15 min
- Allow cooling to +18 – 26 °C



- Transfer 150 µl to test device and read result within **25 min.**

negative  Listeria not present

positive  Listeria present

If positive result:
Streak onto Palcam or Oxford agar for confirmation

Product List

Products	Pack size	Merck Cat.No.	
Listeria enrichment broth, buffered (base) <small>acc. to FDA/BAM 1995 (bLEB)</small>	500g	1.09628.0500	Enrichment
Listeria selective enrichment supplement <small>acc. to FDA/BAM 1995</small>	16 vials	1.11781.0001	
Fraser Listeria selective enrichment broth (base)	500g	1.10398.0500	
Fraser Listeria supplement	16 vials	1.10399.0001	
L-PALCAM- Listeria selective enrichment broth (base) <small>acc. to van Netten et al.</small>	500g	1.10823.0500	
UVM-Listeria selective enrichment broth modified	500g	1.10824.0500	
UVM-II supplement	16 vials	1.04039.0001	
Singlepath® Listeria	25 tests	1.04142.0001	Detection
Oxford Listeria agar	500g	1.07004.0500	Isolation media
Oxford Listeria selective supplement	13 vials	1.07006.0001	
Palcam Listeria agar <small>acc. to van Netten et al.</small>	500g	1.11755.0500	
Palcam Listeria selective supplement	16 vials	1.12122.0001	

Selective Enrichment

Detection

Confirmation

Lateral flow tests

For the rapid detection of pathogens in food



Same safety standard as the classical detection method:

Simple to perform, reliable results in just 20 minutes, considerable savings in time and costs.



Wider product range:

Lateral flow tests detect important pathogens in food: E.coli 0157, Verotoxin-producing E.coli, Salmonella, Campylobacter and Listeria.



Additional plus:

Especially adapted media for precise and reliable results.



W286104 12/04

Merck KGaA
64271 Darmstadt, Germany
Fax: +49 (0) 61 51/72 60 80
Email: mibio@merck.de
Internet: microbiology.merck.de

We provide information and advice to our customers to the best of our knowledge and ability, but without obligation or liability. Existing laws and regulations are to be observed in all cases by our customers. This also applies in respect to any rights of third parties. Our information and advice do not relieve our customers of their own responsibility for checking the suitability of our products for the envisaged purpose. Singlepath® is a registered trademark of Merck KGaA, Darmstadt, Germany.