

## GeneDisc® Technologies

For an easy, rapid and specific detection of *Listeria* in food and environmental samples

*Listeria monocytogenes* is an opportunistic foodborne pathogen that can affect a wide range of food products and can cause severe infections with high mortality rate to the elderly, immunodepressed persons and pregnant women. Since *L. monocytogenes* has the ability to grow slowly at refrigerated temperatures, it is a major concern for food companies.

Two factors have also raised interest for *Listeria* spp. detection. Cases of listeriosis related to other *Listeria* spp. have been reported. Furthermore, evidence suggests the presence of other non-pathogenic *Listeria* spp. can be an early indication of *L. monocytogenes* contamination.

Pall GeneDisc Technologies provides solutions for food processors in need of a reliable control of *L. monocytogenes* and/or *Listeria* spp. risk.



### GeneDisc System Benefits

**Rapid** — Accelerate your controls workflow and achieve fast releases of short shelf life products and testing of raw materials. While other methods such as immunoassays or culture methods (chromogenic media) require up to 3 days to get a result, Pall's GeneDisc method allows a detection of *Listeria* in as fast as 20 hours.

**Easy to use** — GeneDisc solutions are designed for routine use. Implementing PCR (Polymerase Chain Reaction) has never been this easy.

**Modular** — System modularity fits your throughput needs: up to 96 samples can be analyzed in a one hour PCR run.

### A Solution Designed For Food Industries

**In line with MLG 8, BAM 10, OMA 993.12 and ISO 11290 – NF VALIDATION and AOAC certified method.**

**Adaptive to testing needs** – Simultaneous or individual testing solutions for *L. monocytogenes* and *Listeria* spp. are available with same hands-on time and enrichment.

### *Listeria monocytogenes* Identification

Bacteria	Gram + bacilli
Food Vehicle	Large variety of food especially dairy, raw meat and ready-to-eat products
Disease	Listeriosis – can cause severe, invasive infections (e.g., sepsis, meningitis, fetal death)
Incidence of Cases (per 100,000 population)	0.28 (FoodNet, 2010)
Notification Rate (per 100,000 population)	0.35 (EFSA, ECDC, 2010)
Related Outbreaks	3 (strong evidence) (EFSA, ECDC, 2010) 7 (CDC, 2010)
Related Recalls	102 (FDA & FSIS, 2012)
Related Alerts / Information	106 (RASFF, 2011)



## How the System Works



## Technical Information

Enrichment Time	Down to 18 hours
Sample Preparation Time	< 1 hour for 48 samples
PCR Cycle Time	< 1 hour
Total Turnaround Time	Down to 20 hours
Hands On Time	About 45 minutes for 48 samples (<1 min/sample)
Limit Of Detection	1 bacteria in 25 g of food sample and in environmental samples
Specificity	Wide range of strains tested for inclusivity and exclusivity
Internal Positive Control Per Sample Analysis	Detects presence of inhibitors in DNA extract sample



GEN 25/08 – 07/10, GEN 25/07 – 07/10  
ALTERNATIVE ANALYTICAL METHODS FOR AGRIBUSINESS  
Certified by AFNOR certification  
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## Validations

Validation	Matrix	Time to Result
AOAC	Variety of foods and selected environmental surfaces	26 h
NF VALIDATION	Food products and environmental samples	26 h
	Raw milk	20 h

## Ordering Information

Part Number	Description	Samples/pack
<b>Equipment</b>		
EGDUL1A230 (EU)	GeneDisc Ultra-Lyser	-
EGDUL1A120 (US)	GeneDisc Ultra-Lyser	-
EGDCV3A	GeneDisc Cycler Base Unit	-
EGDSV3A	GeneDisc Cycler Sub Unit	-
<b>Consumables</b>		
PFOOD1100	Extraction Pack Food 1	100
GLISMON206006	GeneDisc <i>Listeria monocytogenes</i>	36
GLISMON212006	GeneDisc <i>Listeria monocytogenes</i>	72
GLISSPP106006	GeneDisc <i>Listeria</i> spp.	36
GLISSPP112006	GeneDisc <i>Listeria</i> spp.	72
GLISDU0106006	GeneDisc <i>Listeria</i> DUO	36
GLISDU0112006	GeneDisc <i>Listeria</i> DUO ( <i>Listeria monocytogenes</i> and <i>Listeria</i> spp.)	72

We also offer a full product range for pathogen detection in food and water and for spoilage organisms in beverage.

Quantitative tests for pathogens in water (*Legionella*, *E. coli*, *Enterococcus*...) are also available.

For more information including part numbers please contact us.



Pall Corporation

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