



NQAC

Nestlé Quality Assurance Center  
Dublin

# Technical Datasheet

**Analysis Name:** Detection of *Listeria species* and *Listeria monocytogenes* by IQ-Check®

**Method Number:** LI-00.708 WI

**Scope of Application:** Raw materials, environmental samples, line and finished product samples.

**Description:** A qualitative Real-Time PCR (RTi-PCR) method, using the Bio-Rad iQ-Check® *Listeria* spp. assay to produce next-day screening results. Samples incubate in a selective broth, then are treated with a DNA removal enzyme. A robotic liquid handling platform extracts target DNA, and RTi-PCR is performed in a CFX 96 detection system. Positive sample enrichments undergo a secondary *L. monocytogenes* screen using the Bio-Rad iQ-Check® *Listeria monocytogenes* II assay. Positive enrichments are confirmed on selective agar. Sample enrichments are cultured to isolate and identify *Listeria* to the species level (i.e. *L. monocytogenes*, *L. innocua*, *L. ivanovii*, *L. seeligeri*, *L. welshimeri*, *L. grayi*).

**Sample Weight**

**Required:** 25 g, 125 g, or swab

**Method Reference:** Bio-Rad iQ-Check® *Listeria monocytogenes* II (LMII) AFNOR Certificate No. BRD 07/10 – 04/05.  
Bio-Rad iQ-Check *Listeria* spp (LIS) AFNOR Certificate No. BRD 07/13-05/07.

Validated against EN ISO 11290-1:2017 Part 1 per EN ISO 16140-2:2016.

LMII- AOAC® Performance Tested Certificate No. 010802, January 28, 2021.

LIS- AOAC Performance Tested Certificate No. 090701, October 30, 2023.

**Analytical Platform:** Real-Time PCR

**Special Information:** Some matrices may not be appropriate for RTi-PCR, leading to a “Not Determinable” result. Matrices inhibitory to *Listeria* growth might require higher pre-enrichment dilutions.



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Analyte Reported	Alias	Unit of Measure	Limit of Quantification	Reproducibility
<i>Listeria spp.</i>		Per gram or Per swab	Detected/Not Detected	
<i>Listeria monocytogenes</i>		Per gram or Per swab	Detected/Not Detected	
<i>Listeria</i> Species Identified		N/A	Organism Name/No Typical Growth	
<i>Listeria monocytogenes</i> Confirmation Result		N/A	Isolate Obtained/No Isolate Obtained	

\*Note: Absence of *typical Listeria* or *L. monocytogenes* growth does not automatically invalidate a positive PCR "Detected" result.

**Listeria species and monocytogenes by IQ-Check : LI-00.708 : 8021834**

	<u>Result</u>	<u>Units</u>
Listeria spp. Final	Detected	/25 g
L. spp Date Analyzed	10/30/2024	-
Listeria monocytogenes Final	Detected	/25 g
L. mono Date Analyzed	10/30/2024	-

**Listeria species and monocytogenes Confirmation : LI-00.708-LM-B : 8021834**

**Comment:** When *Listeria monocytogenes* is not isolated from a sample, the confirmed presence of other *Listeria* species does not indicate the absence of *L. monocytogenes*.

	<u>Result</u>	<u>Units</u>
Listeria Species Identified	<i>Listeria innocua</i>	-
Listeria monocytogenes Confirmation Result	No Isolate Obtained	-

**Listeria species and monocytogenes by IQ-Check : LI-00.708 : 8021837**

	<u>Result</u>	<u>Units</u>
Listeria spp. Final	Detected	/25 g
L. spp Date Analyzed	10/30/2024	-
Listeria monocytogenes Final	Not Detected	/25 g
L. mono Date Analyzed	10/30/2024	-

**Listeria species and monocytogenes Confirmation : LI-00.708-LM-B : 8021837**

	<u>Result</u>	<u>Units</u>
Listeria Species Identified	<i>Listeria innocua</i>	-