

Duplica^α Real Time *Listeria Monocytogenes* EBR003032

Introduction

Listeria monocytogenes is a Gram-positive bacterium, motile by means of flagella. It can be isolated from soil, silage, and other environmental sources. *L. monocytogenes* is quite hardy and resists the deleterious effects of freezing, drying, and heat remarkably well for a bacterium that does not form spores. Most *L. monocytogenes* are pathogenic to some degree. Pregnant women, newborns, and adults with weakened immune systems are primarily at risk. About one-third of *Listeria monocytogenes* cases occur during pregnancy. Symptoms vary and depend on the individual's susceptibility, but may include fever, fatigue, nausea, vomiting and diarrhea. *L. monocytogenes* has been associated with such foods as raw milk, supposedly pasteurized fluid milk, cheeses (particularly soft-ripened varieties), ice cream, raw vegetables, fermented raw-meat sausages, raw and cooked poultry, raw meats (all types), and raw and smoked fish. Its ability to grow at temperatures as low as 3°C permits multiplication in refrigerated foods

Duplica^α Real Time *Listeria*

Product	Kit size	Code No.
Duplica ^α Real time <i>Listeria</i>	32 tests	EBR003032

DUPLIC^αRealTime *Listeria monocytogenes* was designed to identify a specific fragment of the HLY A gene.

Test is based on gene amplification and a fluorogenic probe is used for the detection of *Listeria monocytogenes* DNA. The reagents for the amplification are ready to use and provided with 3 reactions mix:

- AMPLIFICATION MIX: with Hot Start Taq DNA polymerase, nucleotides, MgCl₂ and buffer.
- OLIGO MIX with primers and fluorogenic probes.

INTERNAL CONTROL: for evaluate the amplification reaction. The kit is performing 32 reactions, in each session the extracted DNA must be co-amplified with internal control to identify inhibitions in the reactions of amplification.

Sample preparation

The Real Time *Listeria monocytogenes* Detection System enables the user to reveal the presence of *Listeria* in foodstuff or raw material after a pre-enrichment step in Fraser 1/2 medium for 24 hours at 30°C (ISO11290-1).

DNA Extraction

It is possible the use of any commercial DNA extraction kit. Bacterial culture is the extraction matrix.

Sensitivity

The sensitivity of the test is 1-5 Genomic DNA Copies /Test (the sample volume is 4μl)



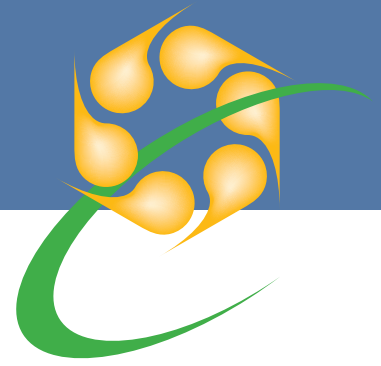
Listeria monocytogenes is the causative agent of listeriosis. Just a few thousand cases of *L. listeria* in humans are reported each year, but, of those, about 500 die.

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Duplica α Real Time Salmonella

EBR004032

Introduction

Salmonellosis is an infection with a bacteria called Salmonella. Most persons infected with Salmonella develop diarrhea, fever, and abdominal cramps 12 to 72 hours after infection. The elderly, infants, and those with impaired immune systems are more likely to have a severe illness. The Salmonella germ is actually a group of bacteria that can cause diarrheal illness in humans. They are microscopic living creatures that pass from the feces of people or animals, to other people or other animals. There are many different kinds of Salmonella bacteria. Salmonella serotype Typhimurium and Salmonella serotype Enteritidis are the most common in the United States. Salmonella has been known to cause illness for over 100 years. Many different kinds of illnesses can cause diarrhea, fever, or abdominal cramps. Determining that Salmonella is the cause of the illness depends on laboratory tests that identify Salmonella in the stools of an infected person. These tests are sometimes not performed unless the laboratory is instructed specifically to look for the organism. Once Salmonella has been identified, further testing can determine its specific type, and which antibiotics could be used to treat it.

Duplica α Real Time Salmonella:

Product	Kit size	Code No.
Duplica α Real time Salmonella	32 tests	EBR004032

This kit is designed to identify a specific fragment of the PFKB-THRS intergenic region.

Test is based on gene amplification and a fluorogenic probe is used for the detection of Salmonella spp DNA. The reagents for the amplification are ready to use and provided with 3 reactions mix:

- AMPLIFICATION MIX: with Hot Start Taq DNA polymerase, nucleotides, MgCl₂ and buffer.
- OLIGO MIX with primers and fluorogenic probes.
- INTERNAL CONTROL: for evaluate the amplification reaction.

The kit is performing 32 reactions, in each session the extracted DNA must be co-amplified with internal control to identify inhibitions in the reactions of amplification

Sample preparation

The Real Time Salmonella Detection System enables the user to reveal the presence of Salmonella in foodstuff or raw material after a pre-enrichment step in Buffered peptone water for 18±2 hours at 37±1°C (ISO6579).

DNA Extraction

It is possible the use of any commercial DNA extraction kit. Bacterial culture is the extraction matrix.

Sensitivity

The sensitivity of the test is 1-5 Genomic DNA Copies /Test (the sample volume is 4µl)



Color-enhanced scanning electron micrograph showing *Salmonella typhimurium* (red) invading cultured human cells