TM 1377 – LISTERIA MOTILITY MEDIUM

INTENDED USE
For testing motility of *Listeria monocytogenes.*

PRODUCT SUMMARY AND EXPLANATION
Bacterial motility is one of the important determinants in making a final species identification. Bacteria move by means of flagella, the number and location of which vary among different species. Semisolid media in tubes are most commonly employed for detecting motility. Motility media have agar concentration of 0.4% or less. The motility test is interpreted by making a macroscopic examination of medium for a diffused zone of growth flaring out from the line of inoculation. *Listeria monocytogenes* requires room temperature incubation before motility develops, since in some organisms; flagellar proteins develop more rapidly at lower temperatures (room temperature) such as in *L. monocytogenes* and *Yersinia enterocolitica*. Listeria Motility Medium is formulated in accordance with ISO Committee specification for the determination of motility by *L. monocytogenes*.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	20.000
Peptic digest of animal tissue	6.100
Agar	3.500

PRINCIPLE
This medium consists of Casein enzymic hydrolysate and peptic digest of animal tissue which act as source of growth nutrients. The motility of *L. monocytogenes* is best demonstrated by stab inoculating two tubes of semisolid medium and incubating one at room temperature (20 - 25°C) and the other at 35°C. Motility is better observed at room temperature. An umbrella-like zone of growth 2 to 5 mm below the surface of the medium is characteristic of *L. monocytogenes*. Motility at 35°C incubation is either absent or extremely sluggish.

INSTRUCTION FOR USE
- Dissolve 29.6 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Allow the tubed medium to cool in an upright position.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light yellow coloured, clear to slightly opalescent gel forms in tubes as butts.
pH (at 25°C) : 7.3 ± 0.2

INTERPRETATION
Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Motility	Incubation Temperature	Incubation Period

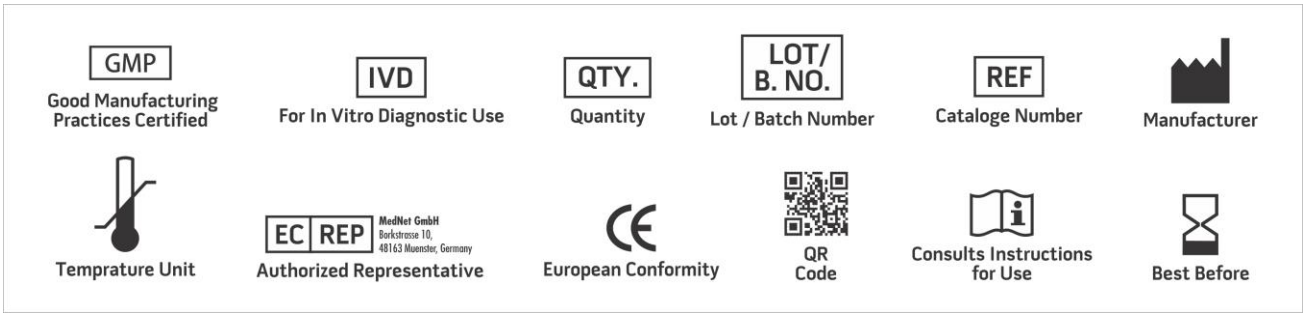
Listeria monocytogenes	19117	50-100	Luxuriant	Positive, growth away from stabline causing turbidity	25-30°C	24-48 Hours
Listeria monocytogenes	19111	50-100	Luxuriant	Positive, growth away from stabline causing turbidity	25-30°C	24-48 Hours
Listeria monocytogenes	19112	50-100	Luxuriant	Positive, growth away from stabline causing turbidity	25-30°C	24-48 Hours
Staphylococcus aureus	25923	50-100	Luxuriant	Negative, growth along the stabline, surrounding medium remains clear	25-30°C	24-48 Hours

PACKAGING:
In pack size of 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. International Organization for Standardization (ISO), 1993, Draft ISO/DIS 10560.
2. Bailey and Scotts Diagnostic Microbiology, 1986, 7th Ed., The C.V. Mosby Co., St. Louis.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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