

## HALF-FRASER BROTH

### Presentation

Flask with 225ml.

### Sterilization method

Aseptic filtration method.

### Application

Culture medium used in the pre-enrichment for the isolation of *Listeria monocytogenes*.

### Principle

*Listeria* species hydrolyze esculin to esculetin, which, in turn, reacts with iron ions producing darkening of the medium. The addition of ammonium ferric citrate favors the growth of *Listeria monocytogenes*. Lithium chloride inhibits the growth of *Enterococcus*, which can hydrolyze esculin. The growth of accompanying bacteria is inhibited by the addition of nalidixic acid and acriflavine.

### How to use

Inoculate according to the methodology used by the laboratory. Incubate for the time and temperature specified in the adopted technique.

### Quality Control

Test	Result
Sterility	Absence of microbial growth
<i>Listeria monocytogenes</i> ATCC 7644	Good growth with esculin hydrolysis
<i>Escherichia coli</i> ATCC 25922	Inhibited growth without esculin hydrolysis
<i>Enterococcus faecalis</i> ATCC 29212	Low growth without esculin hydrolysis
Appearance	Liquid medium, golden yellow to medium amber, clear to slightly opalescent, may contain slight precipitate
pH at 25°C	7.2 ± 0.2

### Results interpretation

Tubes showing darkening of the medium are positive and should be subcultured onto selective agar plates for *Listeria* (ALOA). Tubes retaining the original golden yellow color are considered negative.

### Precautions and special care

Product intended for *in vitro* diagnostic use only. Restricted for use by professionals. Do not inhale or ingest. Do not use the product beyond the expiration date, with signs of contamination, or if it has changed color. In the presence of contamination, the product should be immediately discarded. Do not use the product if the packaging is damaged or tampered with.

### Storage

Store between 2-15°C in a dry place and protect from light. The product maintains its performance even up to 7 days at room temperature for transportation.

### Shelf-life

90 days from the date of manufacture.

### Disposal of the product

After use, the product must be handled at the generating unit before environmentally appropriate final disposal, in accordance with official regulations.

### Quality Guarantee

bioBoaVista guarantees the quality of its products as long as they are used according to their respective instructions and in accordance with national and international references. bioBoaVista does not take responsibility for the use of its products for purposes other than those described and approved by the company. All clinical diagnoses should be analyzed in conjunction with clinical evidence and not solely based on laboratory results.

### References

1. Becton, Dickinson and Company. Difco & BBL Manual. Manual of Microbiological Culture Media, 2nd ed., 2009.
2. ISO 11133:2014. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media.
3. Manual de Métodos de Análise Microbiológica de Alimentos, Livraria Varela, 3ª ed., 2007.
4. Merck Microbiology Manual. 12th ed.