

BPRM Broth Base (Bacteroides Phage Recovery Medium)

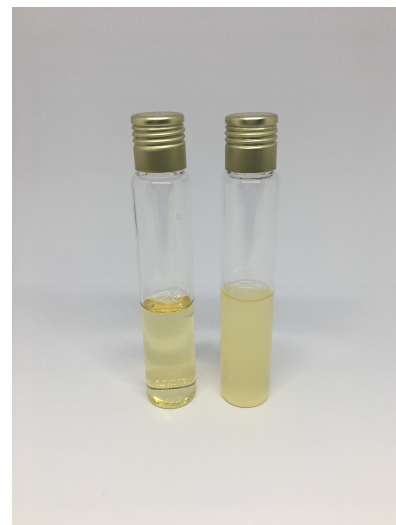
Cat. 1451

For the cultivation of *Bacteroides fragilis* and for phage recovery from environmental samples.

Practical information

Applications	Categories
Growth	<i>Bacteroides fragilis</i>

Industry: Clinical



Principles and uses

BPRM Broth Base (Bacteroides Phage Recovery Medium) is a medium recommended by ISO normative 10705-4 for the cultivation of *Bacteroides fragilis* and for the recuperation of phage from human faecal samples and environmental samples. *Bacteroides fragilis* is a Gram negative bacteria, an obligate anaerobe and one of the most abundant bacteria in the human colon. It causes 90% of the anaerobic peritoneum infections.

This medium allows faster bacterial growth and produces higher phage yields. Peptone and tryptone provide nitrogen, vitamins, amino acids and the nutrients for growth. Glucose is the fermentable carbohydrate, which is a carbon and energy source. Yeast extract is a source of vitamins, particularly of the B-group. Sodium chloride maintains the osmotic balance and magnesium sulfate heptahydrate is the buffering agent in the medium.

With the adequate concentration of agar, a semi-solid or a solid medium can be prepared. To inhibit the accompanying flora, add 100 mg/ml of Kanamycin and 7,5 mg/ml of Vancomycin sterilized by filtration.

Formula in g/L

Glucose	1,8	Magnesium sulfate heptahydrated	0,12
Peptone	10	Sodium chloride	5
Tryptone	10	Yeast extract	2
L-Cysteine	0,5		

Preparation

Suspend 29,42 grams of the medium in one liter of distilled water. Add 1ml of Calcium Chloride 5%. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize at 121 °C for 15 minutes. Cool to 45-50 °C. Aseptically add 1ml/litre of 1% hemin sterile solution prepared in 0,02% NaOH. Mix well. Just before use, add 25 ml/litre of a sterile solution of 10,6% (w/v) Disodium carbonate. Adjust the pH to 7,0 with HCl.

Instructions for use

- Take the inoculum with a sterile loop.
- Submerge the handle into the medium and shake gently.
- Incubate at 44±1 °C for 21±3 hours.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	6,8±0,2

Microbiological test

Incubation conditions: (44±1 °C / 21±3 h).

Microorganisms	Specification
Bacteroides fragilis ATCC 25285	Good growth

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

ISO 10705-4 Water quality -Detection and enumeration of bacteriophages - Part 4: Enumeration of bacteriophages infecting Bacteroides fragilis.
Donia D., Divizia M., Pana' A. Analysis of concentration methods for bacteriophages. Moderna, 1998, 109:1.
Tartera C., Jofre J. Bacteriophages active against Bacteroides fragilis in sewage-polluted waters. Applied and Environmental Microbiology, 1987, 53, 1632.