BPL Agar

M1020

Intended Use:

Recommended for isolation and identification of *Salmonellae* with the exception of *Salmonella* Typhi in faeces, urine, meat, milk and other materials.

Composition**

Ingredients	g / L
HM peptone #	7.000
Sodium chloride	5.000
Lactose	15.000
Phenol red	0.040
Brilliant green	0.005
Agar	13.000
Final pH (at 25°C)	6.5±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Meat peptone

Directions

Suspend 40.04 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Brilliant green, phenol red, lactose Agar (BPL) is a selective agar medium for the identification and isolation of *Salmonella* with the exception of *Salmonella* Typhi in faeces, urine, meat, milk and other materials (1). The medium contains HM peptone, which supplies the nitrogenous nutrients to the organisms. Lactose is the fermentable carbohydrate, which after degradation yields acid production, indicated by the phenol red indicator. In the acidic range, phenol red turns yellow while in alkaline conditions it turns red. Brilliant green inhibits gram-positive organisms and also *Salmonella* Typhi and *Shigella* species.

Type of specimen

Clinical samples - Faeces, Urine; Food and dairy samples; Water samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3).
For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (4,5,6).
For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (7). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic use. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Further biochemical tests must be performed for confirmation.
2. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
3. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Light yellow to pink homogeneous free flowing powder

Gelling
Firm,comparable with 1.3% Agar gel.

Colour and Clarity of prepared medium
Brownish green coloured, clear to slightly opalescent gel forms in Petri plates.

Reaction
Reaction of 4.0% w/v aqueous solution at 25°C. pH : 6.5±0.2

pH
6.30-6.70

Cultural Response
Cultural characteristics observed in a humid atmosphere after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
** *Bacillus spizizenii* ATCC 6633 (00003*)	50-100	none-poor	<=10%	
Enterococcus faecalis ATCC 29212 (00087*)	50-100	none-poor	<=10%	
Escherichia coli ATCC 25922 (00013*)	50-100	poor-good	30-40%	yellow
Salmonella Choleraesuis ATCC 12011	50-100	good-luxuriant	>=50%	pink-red
Salmonella Enteritidis ATCC 13076 (00030*)	50-100	good-luxuriant	>=50%	pink-red
Salmonella Typhimurium ATCC 14028 (00031*)	50-100	good-luxuriant	>=50%	pink to red
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	>=10^4	inhibited	0%	

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

1.Kauffmann F., 1935, Z. Hyg. Infekt. Kr., 117:26.
2.Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3.Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4.American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
5.Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
6.Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed.,APHA Inc., Washington, D.C.
7.Lipps WC, Braun-Howland EB, Baxter TE,eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC:APHA Press; 2023.

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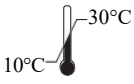
IVD ***In vitro*** **diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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CE Marking

Do not use if package is damaged

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