

TM 045 – BPL AGAR (BRILLIANT GREEN PHENOL RED LACTOSE AGAR)

INTENDED USE

For isolation and identification of Salmonellae except Salmonella Typhi in faeces, urine and milk.

PRODUCT SUMMARY AND EXPLANATION

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. 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.

COMPOSITION

Ingredients	Gms / Ltr
Meat peptone	7.000
Sodium chloride	5.000
Lactose	15.000
Phenol red	0.040
Brilliant green	0.005
Agar	13.000

PRINCIPLE

The medium contains meat 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.

INSTRUCTION FOR USE

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

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium	: Brownish green coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 6.5±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Bacillus subtilis subsp. spizizenii	6633	50-100	None-poor	0-10%	-	35-37°C	18-24 Hours

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PRODUCT DATA SHEET



Enterococcus faecalis	29212	50-100	None-poor	0-10%	-	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Poor-good	10-50%	Yellow	35-37°C	18-24 Hours
Salmonella Choleraesuis	12011	50-100	Good- luxuriant	>=50%	Pink-red	35-37°C	18-24 Hours
Salmonella Enteritidis	13076	50-100	Good- luxuriant	>=50%	Pink-red	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Good- luxuriant	>=50%	Pink-red	35-37°C	18-24 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Inhibited	0%	-	35-37°C	18-24 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. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
- 2. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
- 3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 4. 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.
- 5. Kauffmann F., 1935, Z. Hyg. Infekt. Kr., 117:26.
- 6. 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.

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NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only Revision: 08 Nov., 2019

