# CM 20314 – BROMOTHYMOL LACTOSE BLUE AGAR

## INTENDED USE

It is a selective medium used for the isolation of Gram-negative bacteria from urine & faeces.

## PRODUCT SUMMARY AND EXPLANATION

Reactions with lactose are of great practical importance for the primary isolation of Enterobacteria from clinical specimens. The specimens e.g. faeces is usually plated on a lactose-containing medium on which lactose fermenters and lactose non fermenters form coloured and pale colonies respectively due to the dye incorporated. This procedure makes an immediate presumptive distinction between colonies of the true intestinal pathogens possible. Salmonella and Shigella, do not ferment lactose while the common intestinal commensals, Escherichia and Klebsiella, which do ferment lactose. Bromothymol Lactose Blue Agar is used for differentiating lactose fermenting and non-fermenting bacteria belonging to the family Enterobacteriaceae.

## COMPOSITION

| Ingredients | Gms / Ltr |
|---|---|
| Meat extract | 3.000 |
| Fish peptone | 3.000 |
| Peptone | 20.000 |
| Sodium chloride | 7.500 |
| Sodium thiosulphate | 1.000 |
| Sodium lauryl sulphate (SLS) | 0.150 |
| Lactose | 19.000 |
| Bromo thymol blue | 0.083 |
| Agar | 19.000 |

## PRINCIPLE

Meat extract, fish peptone and peptone provides carbon, nitrogen compounds, long chain amino acids, vitamins and other essential nutrients for bacterial metabolism. Lactose provides a fermentable carbohydrate source for the enteric bacteria. Bromo thymol blue is the pH indicator for indicating acid production due to carbohydrate fermentation. The dye turns yellow at acidic pH and imparts yellow colour to the colony. Alkalinization produces a blue coloration. Sodium Lauryl sulphate inhibits gram positive organisms. Sodium chloride maintains osmotic balance.

## INSTRUCTION FOR USE

Dissolve 72.73 gramsin 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

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|---|---|
| Appearance of Powder | : Cream to greenish yellow homogeneous free flowing powder. |
| Appearance of prepared medium | : Greenish blue coloured, clear to slightly opalescent gel forms in Petri plates. |
| pH (at 25°C) | : 7.4±0.2 |

## INTERPRETATION

Culturalcharacteristics observed after incubation.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Recovery | Colour of colony | Incubation Temperature | Incubation Period |
|---|---|---|---|---|---|---|---|
| Escherichia coli | 25922 | 50-100 | Good-luxuriant | >=50% | Yellow | 35-37°C | 24-48 Hours |
| Staphylococcus aureus subsp.aureus | 25923 | >=$10^3$ | Inhibited | 0% | - | 35-37°C | 24-48 Hours |
| Salmonella Typhi | 6539 | 50-100 | Good-luxuriant | >=50% | Blue/colourless | 35-37°C | 24-48 Hours |
| Enterococcus faecalis | 29212 | >=$10^3$ | Inhibited | 0% | - | 35-37°C | 24-48 Hours |

## PACKAGING:

Inpacksizeof500 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

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

## REFERENCES

1.Cruikshank R.,Duguid J. P., Marmion B. P., Swain R. H. A., (Eds.), 1975, Medical Microbiology, The Practice of Medical Microbiology, 12th Edition, Vol. II, Churchill Livingstone.

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| GMP<br>Good Manufacturing Practices Certified | IVD<br>For In Vitro Diagnostic Use | QTY.<br>Quantity | LOT/ B. NO.<br>Lot / Batch Number | REF<br>Catalog e Number | Manufacturer |
| Temprature Unit | EC REP MedNet GmbH Borkstrasse 10, 48163 Muenster, Germany<br>Authorized Representative | CE<br>European Conformity | QR Code | Consults Instructions for Use | Best Before |

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

*ForLabUseOnly