

CM 20123 – ANTIBIOTIC ASSAY MEDIUM NO. 36

INTENDED USE

General purpose medium for cultivation of a wide variety of fastidious microorganisms.

PRODUCT SUMMARY AND EXPLANATION

The composition of this medium is in accordance to CFR. This medium is recommended for sterility testing. Antibiotic Assay Medium No. 36 is widely employed as seed agar for agar diffusion assay for antibiotic bleomycin. The test organism *Mycobacterium smegmatis* is also maintained in this medium. This medium is employed for cultivation and isolation of fastidious or non-fastidious microorganisms. This medium is also used as maintenance medium of *Pseudomonas aeruginosa* for plate assay of ticarcillin. The medium like the conventional medium is used for a multitude of purposes including maintenance of stock cultures, plate counting, isolation of microorganisms from a variety of specimen types and a base for media containing blood.

Freshly prepared plates should be used for antibiotic assays. Test organisms are inoculated in sterile seed agar pre-cooled to 40-45°C and spread evenly over the surface of solidified base agar. All conditions in the microbiological assay must be controlled carefully. The use of standard culture media in the test is one of the important steps for the good results.

COMPOSITION

| Ingredients | Gms / Ltr |
|--------------------------------|-----------|
| Casein enzymic hydrolysate | 15.000 |
| Papaic digest of soyabean meal | 5.000 |
| Sodium chloride | 5.000 |
| Agar | 15.000 |

PRINCIPLE

Casein enzymic hydrolysate and papaic digest of soyabean gives the essential nutrients for maintenance and growth of the test organisms used. Osmotic balance is maintained by sodium chloride. Agar provides excellent medium for antibiotic diffusion and gives well defined zones of inhibition.

INSTRUCTION FOR USE

Dissolve 40.0 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.

If desired aseptically add 5% v/v defibrinated blood in previously cooled medium at 45 - 50°C. Mix well before pouring.

QUALITY CONTROL SPECIFICATIONS

| | |
|-------------------------------|--|
| Appearance of Powder | : Cream to yellow homogeneous free flowing powder. |
| Appearance of prepared medium | : Basal Medium: Light yellow coloured clear to slightly opalescent gel. After addition of 5-7%w/v sterile defibrinated blood : Cherry red coloured opaque gel forms in Petri plates. |
| pH (at 25°C) | : 7.3±0.2 |

INTERPRETATION

Cultural characteristics observed after incubation with added 5-7%w/v sterile defibrinated blood.



| Microorganism | ATCC | Inoculum (CFU) | Growth | Growth with blood | Recovery | Recovery w/ blood | Incubation Temperature | Incubation Period |
|--------------------------|-------|----------------|-----------|-------------------|----------|-------------------|------------------------|-------------------|
| Bacillus subtilis | 6633 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Staphylococcus aureus | 25923 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Staphylococcus aureus | 6538 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Escherichia coli | 25922 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Escherichia coli | 8739 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Pseudomonas aeruginosa | 27853 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Pseudomonas aeruginosa | 9027 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Micrococcus luteus | 9341 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Salmonella Typhimurium | 14028 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Streptococcus pneumoniae | 6305 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 30-35°C | <=3 Days |
| Candida albicans | 10231 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 20-25°C | <=5days |



| | | | | | | | | |
|--------------------------|-------|---------|-----------|-----------|--------|--------|---------|---------|
| Candida albicans | 2091 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 20-25°C | <=5days |
| Aspergillus brasiliensis | 16404 | 50 -100 | Luxuriant | Luxuriant | >=70 % | >=70 % | 20-25°C | <=5days |

PACKAGING:

Inpacksizeof100 gm and 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. Tests and Methods of Assay of Antibiotics and Antibiotic containing Drugs, FDA, CFR, 1983 Title 21, Part 436, Subpart D, Washington, D.C.: U.S. Government Printing Office, paragraphs 436, 100-436, 106, p. 242-259, (April1).
2. Wright and Welch, 1959-60, Antibiotic Ann., 61.
3. MacFaddin 1985, Media for isolation-cultivation-identification-maintenance medical bacteria Vol, I, Williams, & Wilkins, Baltimore, MD
4. Forbes BA, Sahm DF, Weissfeld AS, 2002, Bailey and Scott's Diagnostic Microbiology, 11th ed.

| | | | | | |
|--|--|--|---|--|---|
|  GMP Good Manufacturing Practices Certified |  IVD For In Vitro Diagnostic Use |  QTY. Quantity |  LOT/ B. NO. Lot / Batch Number |  REF Catalogue Number |  Manufacturer |
|  Temperature Unit |  EC REP Authorized Representative <small>MedNet GmbH Bockstrasse 10, 69163 Mannheim, Germany</small> |  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.

*For LabUse Only