

## CM 22623 - SOYABEAN CASEIN DIGEST AGAR PLATE W/ $\beta$ - LACTAMASE MIXTURE ( $\gamma$ -IRRADIATED) (TRIPLE PACK)

### INTENDED USE

For cultivation of wide variety of aerobes and fungi and for inactivation of penicillin, cephalosporins of first, second, third and fourth generation and penems.

### PRODUCT SUMMARY AND EXPLANATION

SoyabeanCaseinDigest Agarwith beta-lactamase is used in plates for the detection and enumeration of microorganisms present on surfaces of sanitary importance and also in environmental monitoring of clean room for facilities where production of  $\beta$ -lactam group of antibiotics is carried out.

The media are gamma irradiated in the packaging material to assure a reduction of the microbial load potentially present in the medium, on the dishes, and on the packaging materials. Gamma- irradiation of the product is indicated by an orange to red color of the irradiation indicator stripe on the inner label.

### COMPOSITION

| Ingredients               | Gms / Ltr  |
|---------------------------|------------|
| Casein enzyme hydrolysate | 15.000     |
| Agar                      | 15.000     |
| Papaic digest of Soybean  | 5.000      |
| Sodium chloride           | 5.000      |
| Beta-lactamase mixture    | 500.000 IU |

### PRINCIPLE

Medium contains Casein enzymic hydrolysate and papaic digest of soybean meal which provide nitrogenous compounds and other nutrients essential for microbial replication. Sodium chloride is added to maintain cellular osmotic equilibrium. Addition of beta-lactamase mixture enables the growth of resistance strains present in the environment of clean room by inactivating the beta-lactam antibiotics. Agar is used as a solidifying agent.

### INSTRUCTION FOR USE

Eitherstreak,inoculate or surface spread the test inoculum aseptically on the plate. Alternatively, these plates can also be used as settle plates for environmental monitoring.

### QUALITY CONTROL SPECIFICATIONS

|                      |   |  |
|----------------------|---|--|
| Appearance           | : | Light amber color, clear to slightly opalescent gel. |
| Quantity of Medium   | : | 30 $\pm$ 2 ml of medium in 90 mm plates.             |
| pH (at 25°C)         | : | 7.3 $\pm$ 0.2  |
| Dose of irradiation: | : | 10-25 kGy  |
| Sterility Check      | : | Passes release criteria                              |

### INTERPRETATION

GrowthPromotion test was carried out and growth was observed after incubation. Recovery rate is considered 100% for bacteria growth on Soya Agar and fungus growth on Sabouraud Dextrose Agar. Simultaneously, cultural



characteristics was observed on plates which were seeded with 1 mcg per ml respective antibiotic or Minimum Inhibitory Concentration (MIC).

**Growth Promotion Test**

| Microorganism            | ATCC  | Inoculum (CFU/ml) | Growth    | Recovery | Incubation Temperature | Incubation Period |
|--------------------------|-------|-------------------|-----------|----------|------------------------|-------------------|
| Bacillus subtilis        | 6633  | 50-100            | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| Staphylococcus aureus    | 25923 | 50-100            | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| Escherichia coli         | 25922 | 50-100            | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| Pseudomonas aeruginosa   | 27853 | 50-100            | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| Streptococcus pneumonia  | 6305  | 50-100            | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| Salmonella typhimurium   | 14028 | 50-100            | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| Enterococcus faecalis    | 29212 | 50-100            | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| Candida albicans         | 10231 | 50-100            | Luxuriant | >=70%    | 20-25 °C               | <=5 days          |
| Aspergillus brasiliensis | 16404 | 50-100            | Luxuriant | >=70%    | 20-25 °C               | <=5 days          |

**Cultural Response**

| Microorganism         | ATCC  | Inoculum (CFU/ml) | Growth    | Recovery | Incubation Temperature | Incubation Period |
|-----------------------|-------|-------------------|-----------|----------|------------------------|-------------------|
| Escherichia coli      | 25922 | 50-100            |           |          |                        |                   |
| w/o antibiotic        |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Cephalothin        |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Cefotaxime         |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Ceftazidime        |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Imipenem           |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Ertapenem          |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Meropenem          |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| Staphylococcus aureus | 25923 | 50-100            |           |          |                        |                   |
| w/o antibiotic        |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Penicillin         |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Cephalothin        |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Cefotaxime         |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Ceftazidime        |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Imipenem           |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Ertapenem          |       |                   | Luxuriant | >=70%    | 30-35°C                | 18-24 hours       |
| w/ Meropenem          |       | Luxuriant         | >=70%     | 30-35°C  | 18-24 hours            |                   |

**PACKAGING:**

Triple layered packing containing 5 No. of plates with one silica gel desiccant bag packed inside it.

**STORAGE**

On receipt, store the plates at 15–30 °C. Avoid freezing and overheating. Do not open until ready to use. Prepared plates stored in their original sleeve wrapping until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation. Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.



## DISPOSAL

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

## REFERENCES

1. Hall and Hartnett, 1964, Public Hlth. Rep., 79:1021.
2. Richardson (Ed.), 1985, Standard Methods for the Examination of Dairy Products, 15th ed., APHA, Washington, D.C.
3. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
4. Brummer, 1976, Appl. Environ. Microbiol., 32:80.
5. Favero (Chairm), 1967, Biological Contamination Control Committee, a state of the art report.,Am. Assoc. for contamination control.
6. Murray PR, Baron, Pfaller, and Tenenbaum (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.

QTY.

Quantity

LOT/  
B. NO.

Lot / Batch Number



Temperature Unit



Manufacturer



Best Before

GMP

Certification of  
Good Manufacturing Practices

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

\*ForLab UseOnly

