

## **CM 20128 - SOYA CASEIN DIGEST MEDIUM (ANTIBIOTIC ASSAY MEDIUM NO.37) (TRYPTONE SOYA BROTH) CASO BROTH (VEG.)**

### INTENDED USE

For sterility testing and cultivation of fastidious and non-fastidious microorganisms.

### PRODUCT SUMMARY AND EXPLANATION

Antibiotic Veg Assay Medium No. 37 is prepared by incorporating vegetable peptones in place of animal peptones, making the medium BSE-TSE risks free. Grove and Randall have elucidated the antibiotic assays and media in their comprehensive treatise on antibiotic assays and are also formulated as per CFR and USP.

Antibiotic Veg Assay Medium No. 37 can be used for the same purpose of Antibiotic Assay Medium No. 37. Hence Antibiotic Veg Assay Medium No. 37 can also be used for cultivation of fastidious and non-fastidious organisms and sterility testing of pharmaceutical preparations.

It is also used for the sensitivity testing by the tube dilution method for antimicrobial agents. Turbid metric antibiotic assay is based on the change or inhibition of growth of test microorganisms in a liquid medium containing a uniform concentration of an antibiotic. After incubation of the test organism in the working dilutions of the antibiotics, the amount of growth is determined by measuring the light transmittance using spectrophotometer. The concentration of antibiotic is determined by comparing amounts of growth obtained with that given by the reference standard solutions. Use of this method is appropriate only when test samples are clear.

### COMPOSITION

| Ingredients                    | Gms / Ltr |
|--------------------------------|-----------|
| Veg hydrolysate                | 17.000    |
| Papaic digest of soyabean meal | 3.000     |
| Dextrose                       | 2.500     |
| Sodium chloride                | 5.000     |
| Dipotassium phosphate          | 2.500     |

### PRINCIPLE

The combination of Veg hydrolysate and papaic digest of soyabean meal makes this medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Dextrose serves as the carbohydrate source and dipotassium phosphate facilitates buffering in the medium. Sodium chloride maintains the osmotic balance of the medium.

### INSTRUCTION FOR USE

- Dissolve 30 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 25°C and store in a cool dark place preferably below 25°C.

### QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Cream to yellow homogeneous free flowing powder.  
 Appearance of prepared medium : Light yellow coloured clear solution without any precipitate in tubes.  
 pH (at 25°C) : 7.3±0.2

#### INTERPRETATION

Cultural characteristics observed after an incubation.

| Microorganism            | ATCC  | Inoculum (CFU/ml) | Growth    | Incubation Temperature | Incubation Period |
|--------------------------|-------|-------------------|-----------|------------------------|-------------------|
| Escherichia coli         | 25922 | 50 -100           | Luxuriant | 30-35°C                | <= 3 days         |
| Escherichia coli         | 8739  | 50 -100           | Luxuriant | 30-35°C                | <= 3 days         |
| Salmonella Ebony         | 6017  | 50 -100           | Luxuriant | 30-35°C                | <= 3 days         |
| Salmonella Typhimurium   | 14028 | 50 -100           | Luxuriant | 30-35°C                | <= 3 days         |
| Bacillus subtilis        | 6633  | 50 -100           | Luxuriant | 30-35°C                | <= 3 days         |
| Staphylococcus aureus    | 25923 | 50 -100           | Luxuriant | 30-35°C                | <= 3 days         |
| Micrococcus luteus       | 9341  | 50 -100           | Luxuriant | 30-35°C                | <= 3 days         |
| Streptococcus pneumoniae | 6305  | 50 -100           | Luxuriant | 30-35°C                | <= 3 days         |
| Pseudomonas aeruginosa   | 27853 | 50 -100           | Luxuriant | 30-35°C                | <= 3 days         |



|                          |       |         |           |         |           |
|--------------------------|-------|---------|-----------|---------|-----------|
| Candida albicans         | 10231 | 10 -100 | Luxuriant | 20-25°C | <= 5 days |
| Candida albicans         | 2091  | 10 -100 | Luxuriant | 20-25°C | <= 5 days |
| Aspergillus brasiliensis | 16404 | 10 -100 | Luxuriant | 20-25°C | <= 5 days |

#### 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

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

#### REFERENCES

1. Grove and Randall, 1955, Assay Methods of Antibiotics, Medical Encyclopedia, Inc. New York
2. 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, (April 1).
3. United States Pharmacopoeia / National Formulary (USP21/NF16) 1985, US Pharmacopoeial Convention, Inc., Rockville, MD.
4. Wright and Welch, 1959-60, Antibiotics Ann., 61.



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

\*For LabUse Only

