

## TMH 102-SOYBEAN CASEIN DIGEST MEDIUM (TRYPTONE SOYA BROTH) (CASO BROTH) (as per USP/EP/BP/JP/IP)

### INTENDED USE

For cultivation of wide variety of microorganisms recommended for sterility testing of molds and lower bacteria.

### PRODUCT SUMMARY AND EXPLANATION

Soybean casein digest medium (as per USP/EP/JP/BP/IP) is used for cultivation of microorganism and sterility testing of molds and bacteria. This medium is used for the sensitivity testing of antimicrobial agents by the tube dilution method. It is also employed in diagnostic research in microbiology. This medium is used as a diluent and suspending medium for preparation of samples or test strains. It is also employed in sample preparation for testing of products, wherein incubation is carried out, only to serve sufficient resuscitation of the cell, while avoiding multiplication of the organism.

### COMPOSITION

| Ingredients                    | Gms / Ltr |
|--------------------------------|-----------|
| Pancreatic digest of Casein    | 17.000    |
| Sodium chloride                | 5.000     |
| Papaic digest of Soybean       | 3.000     |
| Dipotassium hydrogen phosphate | 2.500     |
| Glucose                        | 2.500     |

### PRINCIPLE

Papaic digest of soyabean meal and pancreatic digest of casein makes this medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Natural sugars in soybean promote growth of fastidious organism. Dipotassium hydrogen phosphate serves as the buffer in the medium. Sodium chloride maintains the osmotic balance. Glucose is the fermentable source of carbon.

### INSTRUCTION FOR USE

- Dissolve 30.00 grams in 1000 ml distilled water.
- Gently heat to dissolve the medium completely.
- Dispense in tubes or flasks as desired.
- Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.

**Note:** If any fibres are observed in the solution, it is recommended to filter the solution through a 0.22 micron filter to eliminate the possibility of presence of fibres.

### QUALITY CONTROL SPECIFICATIONS

|                               |   |  |
|-------------------------------|---|--|
| Appearance of Powder          | : | Cream to yellow colour homogeneous free flowing powder |
| Appearance of prepared medium | : | Light yellow colour, clear solution                    |
| pH (at 25°C)                  | : | 7.3±0.2  |

### INTERPRETATION

Cultural characteristics observed after incubation.

| Microorganism    | ATCC | Inoculum (CFU/ml) | Growth | Incubation Temperature | Incubation Period |
|------------------|------|-------------------|--------|------------------------|-------------------|
| Growth promotion |      |                   |        |                        |                   |



|   |       |        |           |         |             |
|---|-------|--------|-----------|---------|-------------|
| <i>Staphylococcus aureus</i>                            | 6538  | 50-100 | Luxuriant | 30-35°C | 18-24 Hours |
| <i>Staphylococcus aureus</i>                            | 25923 | 50-100 | Luxuriant | 30-35°C | 18-24 Hours |
| <i>Escherichia coli</i>                                 | 8739  | 50-100 | Luxuriant | 30-35°C | 18-24 Hours |
| <i>Escherichia coli</i>                                 | 25922 | 50-100 | Luxuriant | 30-35°C | 18-24 Hours |
| <i>Pseudomonas aeruginosa</i>                           | 9027  | 50-100 | Luxuriant | 30-35°C | 18-24 Hours |
| <i>Pseudomonas aeruginosa</i>                           | 27853 | 50-100 | Luxuriant | 30-35°C | 18-24 Hours |
| <i>Bacillus subtilis</i>                                | 6633  | 50-100 | Luxuriant | 30-35°C | 18-24 Hours |
| <i>Salmonella typhimurium</i>                           | 14028 | 50-100 | Luxuriant | 30-35°C | 18-24 Hours |
| <i>Micrococcus luteus</i>                               | 9341  | 50-100 | Luxuriant | 30-25°C | 18-24 Hours |
| <i>Streptococcus pneumoniae</i>                         | 6305  | 50-100 | Luxuriant | 30-35°C | 18-24 Hours |
| <i>Candida albicans</i>                                 | 10231 | 50-100 | Luxuriant | 30-35°C | <=5 Days    |
| <i>Candida albicans</i>                                 | 2091  | 50-100 | Luxuriant | 30-35°C | <=5 Days    |
| #Aspergillus brasiliensis                               | 16404 | 50-100 | Luxuriant | 30-35°C | <=5 Days    |
| <b>Sterility Testing (Growth promotion+ Validation)</b> |       |        |           |         |             |
| <i>Staphylococcus aureus</i>                            | 6538  | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Staphylococcus aureus</i>                            | 25923 | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Escherichia coli</i>                                 | 8739  | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Escherichia coli</i>                                 | 25922 | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Pseudomonas aeruginosa</i>                           | 9027  | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Pseudomonas aeruginosa</i>                           | 27853 | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Bacillus subtilis</i>                                | 6633  | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Salmonella typhimurium</i>                           | 14028 | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Streptococcus pneumoniae</i>                         | 6305  | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Micrococcus luteus</i>                               | 9341  | 50-100 | Luxuriant | 20-25°C | <=3 Days    |
| <i>Candida albicans</i>                                 | 10231 | 50-100 | Luxuriant | 20-25°C | <=5 Days    |
| <i>Candida albicans</i>                                 | 2091  | 50-100 | Luxuriant | 20-25°C | <=5 Days    |
| #Aspergillus brasiliensis                               | 16404 | 50-100 | Luxuriant | 20-25°C | <=5 Days    |

#Formerly Known as Aspergillus niger

## PACKAGING

In 100 & 500 gm packaging size.

## STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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 powder show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

## DISPOSAL










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

## REFERENCES

1. British Pharmacopoeia, 2016, The Stationery Office British Pharmacopoeia
2. European Pharmacopoeia, 2017, European Dept. for the quality of Medicines.
3. Japanese Pharmacopoeia, 2016.



4. Indian Pharmacopoeia, 2018, Govt. of India, the controller of Publication, Delhi, India.
5. The United States Pharmacopoeia, 2019, the United States Pharmacopoeial Convention. Rockville, MD.
6. Wright and Welch, 1959-60, Antibiotics Ann., 61.

|   |   |  |  |   |
|---|---|--|--|---|
| <br>GMP<br>Good Manufacturing<br>Practices Certified | <br>Best Before        | <br>Quantity                          | <br>Cataloge Number | <br>Manufacturer |
| <br>Temperature Unit                                 | <br>Lot / Batch Number | <br>Consults Instructions<br>for Use | <br>QR<br>Code      |   |

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

**\*For professional use only.**

**Revision: 05<sup>th</sup> June. 2020**