

TM 1292 - SPORULATION BROTH

INTENDED USE

For promoting sporulation in *Bacillus subtilis*.

PRODUCT SUMMARY AND EXPLANATION

Sporulation Broth was originally developed by Arret and Kirshbaum for the detection of antibiotic residues in milk and milk products. The medium is specified for the preparation of spores, by APHA, for disc assay procedure for the detection of sulfa drugs and antibiotics in milk.

A fresh slant culture of *Bacillus subtilis* is washed with sterile physiological saline onto the surface of Roux bottles containing 300 ml sterile medium. The bottles are incubated at 35°C for 5 days and the resulting growth is suspended into 50 ml of sterile physiological saline. The growth is washed by centrifuging the suspension and discarding the supernatant. The sediment obtained is re-suspended in fresh sterile saline and heated at 70°C for 30 minutes to kill vegetative cells and obtain the spore suspension. This spore suspension can be stored for months for use in detection of penicillin/ antibiotic residues in milk and dairy products.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	6.000
Casein enzymic hydrolysate	4.000
Yeast extract	3.000
Beef extract	1.500
Dextrose	1.000
Manganous sulphate	0.300

PRINCIPLE

Peptic digest of animal tissue and beef extract provide nitrogen, sulphur and amino acids and essential trace ingredients. Yeast extract is a rich source of vitamin B; dextrose is the energy source. Suspensions containing large numbers of bacterial spores are obtained using Sporulation Broth.

INSTRUCTION FOR USE

- Dissolve 15.8 grams in 1000 ml distilled water. Mix thoroughly.
- Heat if necessary to ensure complete solution.
- Dispense as desired. Sterilize by autoclaving at 15 psi pressure (121°C) for 20 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to light yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear solution without any precipitate.
pH (at 25°C) : 6.6±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Spore formation	Incubation Temperature	Incubation Period
<i>Bacillus pumilus</i>	14884	50-100	Luxuriant	Positive	35-37°C	5 Days
<i>Bacillus pumilus</i>	6633	50-100	Luxuriant	Positive	35-37°C	5 Days

PACKAGING:

In pack size of 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

- Arret B. and Kirshbaum A., 1959, J. Milk and Food Tech., 22:329.
- Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.

 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	 CE 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 Lab Use Only
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