

Product Data Sheet

PLET AGAR BASE

Product No. GB-DCM-00443-1A

INTENDED USE

For selective isolation and cultivation of *Bacillus anthracis*.

PRODUCT SUMMARY

Anthrax is an infectious disease caused by spores of the bacterium *Bacillus anthracis*. In human anthrax, the bacillus is usually demonstrable in material from a malignant pustule, sometimes in sputum from pulmonary anthrax and also in the blood in the septicemic stage of all forms of the infections. Man is relatively resistant to anthrax and laboratory workers are rarely infected. However great care should be taken to avoid escape of the long surviving spores into laboratory environment and all the procedures should be carried out in safety cabinet. Anthrax cannot spread directly from human to human but anthrax spores can be transported by human clothings, shoes etc. In humans, anthrax is caused by exposure to dead infected animals, consumptions of infected animal tissue or exposure to light density anthrax spores from animal wool, fur, hide, etc. PLET Agar Base originally formulated by Knisley is the best selective medium for cultivation of *B.anthraxis* from suspected environmental specimens, animal products or clinical specimens, inhibiting *Bacillus cereus* .

Product Specifications

| Ingredients | Gms / Ltr |
|---------------------------|------------------|
| Beef heart, infusion from | 500.00 |
| Tryptose | 10.000 |
| Sodium chloride | 5.000 |
| EDTA | 0.300 |
| Thallous acetate | 0.040 |
| Agar | 15.000 |

PRINCIPLE

The medium consists of Beef heart infusion from solids and Tryptose which provide the carbonaceous and nitrogenous compounds necessary for growth whereas sodium chloride provides the osmotic equilibrium. Thallous acetate and Polymyxin are inhibitory agents allowing growth of *B.anthraxis* while inhibiting contaminants. Lysozyme specifically suppresses the growth of gram-negative contaminants. PLET Agar Base inhibits growth of most strains of *B.cereus*, *B.subtilis* , other *Bacillus* species, Enterobacteriaceae and *Pseudomonas* species.



INSTRUCTION FOR USE

- Dissolve 40.34 grams in 990 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 50°C.
- Aseptically add rehydrated contents of 1 vial of Anthracis Selective Supplement.
- Mix well and dispense as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium: Light amber coloured clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 7.3± 0.2

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Colour of medium | Incubation Temperature | Incubation Period |
|--------------------|-------|-------------------|----------------|------------------|------------------------|-------------------|
| Bacillus cereus | 10876 | >10 ³ | Good-luxuriant | Light yellow | 35-37°C | 36-40 Hours |
| Bacillus anthracis | 14578 | 50-100 | Good-luxuriant | Yellow | 35-37°C | 36-40 Hours |

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.

This product is for research use only.