

TM 1467 – TRYPTONE PEPTONE GLUCOSE YEAST EXTRACT BROTH BASE W/O TRYPSIN

INTENDED USE

For testing toxicity by *Clostridium botulinum*.

PRODUCT SUMMARY AND EXPLANATION

Clostridium botulinum is a species of anaerobic, spore-forming, rod-shaped bacteria that produces a protein with a characteristic neurotoxicity. *C. botulinum* cultures fall into three distinct groups by properties other than the toxin type they produce, with each group composed only of strains having similar cultural and physiological characteristics. Proteolysis i.e. ability to digest coagulated egg white or meat, is one of the differentiating characteristic. Tryptone Peptone Glucose Yeast Extract (TPGY) Broth is formulated as per recommendation of APHA, for the determination of toxicity of *Clostridium botulinum* cultures in food.

Presumptive *C. botulinum* cultures are inoculated into Tryptone Peptone Glucose Yeast Extract Broth Base w/o Trypsin, for the non-proteolytic types and Cooked Meat Medium for the proteolytic types. Incubate inoculated tubes for 7 days and then test for toxin. If there is no growth after 7 days of incubation, incubate for an additional 10 days to permit possible delayed germination of spores of *C. botulinum* before discarding. Toxins of non-proteolytic types do not manifest maximum potential toxicity until they are activated. Therefore, food supernatant, liquid food, TPGY Broth or cooked meat cultures are treated with trypsin for activation. Toxins of proteolytic types do not need such activation.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	50.000
Peptic digest of animal tissue	5.000
Yeast extract	20.000
Dextrose	4.000
Sodium thioglycollate	1.000

PRINCIPLE

Casein enzymic hydrolysate, peptic digest of animal tissue and yeast extract provide nitrogenous, carbonaceous substances, vitamin B complex and other essential growth nutrients. Dextrose serves as fermentable carbohydrate and sodium thioglycollate serves as a reducing agent. Trypsin activates toxins of the non-proteolytic types.

INSTRUCTION FOR USE

- Dissolve 80 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.
- Refrigerate the sterile medium until use.
- Before inoculation add 1.5% filter sterilized trypsin solution to a final concentration of 0.1% if desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured clear solution without significant precipitate.
pH (at 25°C)	: 7.0±0.2



INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Clostridium botulinum</i>	25763	50-100	Luxuriant	26-28°C	7 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

1. Vanderzant C. and Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, 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 <small>MedNet GmbH Borkstrasse 10, 48163 Muenster, Germany</small>	 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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