MP Biomedicals, LLC
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Certificate of Analysis

Product: YT Broth-Agar
Catalog No.: 3011-2XX; 3011-231; 3011-232; 3011-241; 3011-252; 3011-251
Lot No.: 91020

YT Broth-Agar: Molecular Biology Certified Bacterial Growth Medium
Medium optimized for the growth and maintenance of M13 or other filamentous phage.

Catalog Numbers and Sizes:

3011-231 3011-232
3011-241 3011-252
3011-251

Formulation and Molecular Biological Specifications of Components:

Contents Per Liter: 8 g Tryptone, 5 g Yeast Extract, 5 g NaCl, 15 g Agar. Biological buffers have been added for proper pH adjustment. Gelatin capsules are produced in a facility that meets the FDA's recent guidance as being derived from BSE-free herds that are born, raised, and slaughtered in the United States.

Reference: Jeffery H. Miller (1977) Experiments in Molecular Genetics. Cold Springs Harbor Laboratory Press, NY.

Recommended Use:

Capsules: Add 33 capsules per liter of purified water.
Powder: Add 33 g of powder per liter of purified water.
For laboratory use only.

Storage:

Store sterile YT Broth-Agar at ambient temperature (15-30°C). Powder medium is hygroscopic, therefore minimize exposure to air to prolong shelf life of media.

Shelf Life:

In airtight closed container: 4 years.

Quality Assurance Information

All MP Biomedicals products are thoroughly tested to ensure reliable results in the laboratory. The following paragraphs describe the preparation and quality control procedures.

Media Preparation:

Reagents are tested and chosen for their ability to promote optimum growth of *E. coli* when combined in YT Broth formulations. Chosen reagents are combined in the accurate proportions according to the formula listed above and thoroughly blended for a uniform distribution. A sample of the blended formulation was used to prepare liquid. The combinations were mixed to dissolve components and then autoclaved at 121C for 15 minutes.

Note: Autoclaving at hotter temperatures or for longer periods will result in darkening of the sterile medium, (a darker color does not normally affect growth of cells, only the appearance of the sterile medium).

Quality Control Assay:

A sample of the milled and blended formulation was used to prepare plate medium by adding 3.3g of YT Broth-Agar to 100ml of purified water. The combinations were mixed by hand for about 1 minute to dissolve the dextrose and autoclaved at 121°C for 15 minutes. The pH of the medium was tested to insure that the proper specification was attained. After cooling to 50°C, plates of YT Broth-Agar were poured. YT Broth-Agar was tested by E.coli cell growth at 37°C for approximately 24 hours.

Results of Quality Control Assay

YT Broth-Agar liquid solution was determined to be **clear** and **particulate free**. pH of solution of YT Broth-Agar was found to be **6.64** @ **50.2°C**, The cell growth of YT Broth-Agar passed the test.

Conclusions:

This lot of YT Broth - Agar is released for product sales.

10/04/2016 - John Huang, PhD
QBioGene/MP Biomedicals, LLC
Quality Control Manager

MSDS available online at www.mpbio.com