

## Technical Data Sheet

### GranuCult® prime

### Tryptose broth acc. FDA-BAM

Ordering number: 1.03866.0500

For the cultivation of fastidious microorganisms from food and animal feed, water and other samples.

This culture medium complies with the specifications given by FDA-BAM Medium M167 and APHA.

This culture medium is released by the quality control laboratory of Merck KGaA, Darmstadt, Germany. The laboratory is accredited by the German accreditation authority DAkkS as registered test laboratory D-PL-15185-01-00 according to DIN EN ISO/IEC 17025 for the performance testing of media for microbiology according to DIN EN ISO 11133.

#### Mode of Action

This culture medium contains tryptose which is a mixture of tryptic digested proteins. It provides nitrogen, vitamins and amino acids. Glucose acts as a carbon source whilst sodium chloride maintains the osmotic balance.

According to FDA-BAM Chapter No. 10 *Listeria*, Tryptose broth is used for subculturing before serological subtyping of *Listeria monocytogenes*.

#### Typical Composition

APHA specifies no composition for Tryptose broth.

| Specified by<br>FDA-BAM M167 |           | GranuCult® prime<br>Tryptose broth acc. FDA-BAM |           |
|------------------------------|-----------|---|-----------|
| Tryptose                     | 20.0 g/l  | Tryptose  | 20.0 g/l  |
| Dextrose                     | 1.0 g/l   | D(+)-Glucose*                                   | 1.0 g/l   |
| NaCl                         | 5.0 g/l   | NaCl  | 5.0 g/l   |
| Water                        | 1 liter   | Water   | n/a       |
| pH at 25 °C                  | 7.2 ± 0.2 | pH at 25 °C                                     | 7.2 ± 0.2 |

\* D(+)-Glucose is equivalent to the term Dextrose.

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## Preparation

Dissolve 26.0 g in 1 liter of purified water. Autoclave (15 minutes at 121 °C).

The dehydrated medium is a granulate with beige color.

The prepared medium is clear to opalescent and yellowish-brown. The pH value at 25 °C is in the range of 7.0 - 7.4.

Before inoculation, allow the prepared medium to equilibrate at room temperature if it was stored at a lower temperature.

## Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used.

Incubate the inoculated medium at (34–38) °C for (24–48) hours aerobic.

## Storage

Store at +15 °C to +25 °C, dry and tightly closed. Do not use clumped or discolored medium. Protect from UV light (including sun light). For *in vitro* use only.

## Microbiological Performance

The performance test is in accordance with the current version of EN ISO 11133.

Test method: Qualitative single tube method (turbidity) for performance testing of liquid media

| Test strain   | Specification |        |
|---|---------------|--------|
|   | Inoculum      | Growth |
| <i>Escherichia coli</i><br>ATCC® 25922 [WDCM 00013]       | ≤ 100 CFU     | good   |
| <i>Salmonella</i> Typhimurium<br>ATCC® 14028 [WDCM 00031] | ≤ 100 CFU     | good   |
| <i>Salmonella</i> Enteritidis<br>ATCC® 13076 [WDCM 00030] | ≤ 100 CFU     | good   |
| <i>Shigella flexneri</i><br>ATCC® 12022 [WDCM 00126]      | ≤ 100 CFU     | good   |
| <i>Listeria monocytogenes</i><br>ATCC® 13932 [WDCM 00021] | ≤ 100 CFU     | good   |
| <i>Staphylococcus aureus</i><br>ATCC® 25923 [WDCM 00034]  | ≤ 100 CFU     | good   |

Incubation: 24 ± 2 hours at 35 ± 1 °C aerobic.

Reference medium (Inoculum): Tryptic Soy agar.

Please refer to the actual batch related Certificate of Analysis.

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## Literature

APHA (2015) Chapter No. 67: Microbiological media, reagents and stains. Compendium of Methods for the Microbiological Examination of Foods. 5<sup>th</sup> ed. American Public Health Association, Washington, D.C.

EN ISO International Standardisation Organisation. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media + Amendment 1 + Amendment 2. EN ISO 11133:2014/Amd1:2018/Amd2:2020.

FDA-BAM (2017): Chapter No. 10: Detection of *Listeria monocytogenes* in Foods and Environmental Samples, and Enumeration of *Listeria monocytogenes* in Foods. Food and Drug Administration - Bacteriological Analytical Manual.

FDA-BAM (2018): Media Index for BAM - BAM Media M167: Tryptose Broth and Agar (for serology) Agar. Food and Drug Administration - Bacteriological Analytical Manual.

McFaddin J.F. (1985): Tryptose Agar/Broth w/wo Thiamine. In: Media for isolation – cultivation – identification – maintenance of medical bacteria. Volume I. pp. 802-804. Lippincott Williams and Wilkins, Baltimore, MD, USA.

## Ordering Information

| Product   | Cat. No.     | Pack size |
|---|--------------|-----------|
| GranuCult® prime<br>Tryptose broth acc. FDA-BAM | 1.03866.0500 | 500 g     |