

## TM 437 – TGB AGAR (TRYPTONE GLUCOSE BEEF EXTRACT AGAR)

### INTENDED USE

For enumeration of bacteria in water and dairy products.

### PRODUCT SUMMARY AND EXPLANATION

Heterotrophic plate count (HPC), formerly known as the standard plate count is a procedure for estimating the number of live heterotrophic bacteria in a sample and for measuring changes that could have occurred during various treatment procedures. TGB Agar is a modification of Skim Milk Agar developed by Bower and Hucker for detecting bacteria in milk and other dairy products. TGB Agar, with added milk was used for the examination of dairy products and water. It is also recommended by APHA in testing bottled water.

### COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	5.000
Beef extract	3.000
Glucose	1.000
Agar	15.000

### PRINCIPLE

Casein enzymic hydrolysate and beef extract provide nitrogenous and carbonaceous compounds along with other nutrients essential for the growth of organisms. Glucose serves as an energy source.

### INSTRUCTION FOR USE

- Suspend 24 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

<b>Appearance of Powder</b>	: Cream to yellow homogeneous free flowing powder.
<b>Appearance of prepared medium</b>	: Light yellow coloured clear to slightly opalescent gel forms in Petri plates.
<b>pH (at 25°C)</b>	: 7.0±0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Bacillus subtilis</i>	6633	50-100	Luxuriant	≥70%	35-37°C	24-48 Hours



<i>Enterococcus faecalis</i>	29212	50-100	Luxuriant	>=70%	35-37°C	24-48 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	>=70%	35-37°C	24-48 Hours
<i>Lactobacillus casei</i>	9595	50-100	Luxuriant	>=70%	35-37°C	24-48 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	>=70%	35-37°C	24-48 Hours
<i>Staphylococcus aureus</i>	25923	50-100	Luxuriant	>=70%	35-37°C	24-48 Hours
<i>Streptococcus pyogenes</i>	19615	50-100	Luxuriant	>=70%	35-37°C	24-48 Hours

#### PACKAGING:

In pack size of 100 gm and 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. Bowers L. S. and Huker J. G., 1935, Tech. Bull. 228, N.Y. State Agr. Exp. Sta.
2. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
3. Eaton A. D., Clesceri L. S. and Greenberg A W., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st Ed., APHA, Washington, D.C.
4. American Public Health Association, 1948, Standard Methods for the examination of Dairy Products, 9th Ed., APHA, New York, N. Y.
5. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.



 Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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