



Tryptone Glucose Yeast Extract Agar (Plate Count Agar) RDM-TGYA-01

Principle

Tryptone glucose yeast extract agar is simple media used for enumeration of bacteria from potable water, waste water, air and food and dairy products. It is composed of tryptone, yeast extract, glucose and agar. Tryptone and yeast extract provide nitrogen, carbon, vitamins and other essential growth factors. Glucose is carbon source. Agar is solidifying agent.

Use: Recommended for standard media for enumeration of bacteria from water, waste water, air, dairy products food.

Contents*

Ingredients	Gram/Litre
Tryptone	5.00
Yeast Extract	3.00
Glucose	1.00
Agar	15.00
pH at 25°C	7.0 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 24.00 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min, cool it to 42-45 °C and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Potable, waste water samples, air samples, food and dairy samples etc.

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Light beige colored free flowing, homogeneous powder
Reaction of 2.40% solution	7.0 ±0.2 at 25 °C
pH	6.80- 7.20
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Light amber colored opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Prepare medium as per label directions, Inoculate with 50-100 CFU of test organism. Incubate at $35 \pm 2^\circ\text{C}$ for 24-48 hours.

Organism	Inoculum	Growth	Recovery	Colony Color	Incubation
<i>Escherichia coli</i> (ATCC 8739)	50-100	Luxurious	80-90%	Cream	$35 \pm 2^\circ\text{C}$ 24-48 h
<i>Staphylococcus aureus</i> (ATCC 25923)	50-100	Luxurious	80-90%	Yellowish Cream	$35 \pm 2^\circ\text{C}$ 24-48 h
<i>Bacillus spizizenii</i> (ATCC 6633)	50-100	Luxurious	80-90%	Cream	$35 \pm 2^\circ\text{C}$ 24-48 h
<i>Salmonella typhimurium</i> (ATCC 14028)	50-100	Luxurious	80-90%	Cream	$35 \pm 2^\circ\text{C}$ 24-48 h

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.

Disclaimer

The information contained in the technical data sheet is to the best of our knowledge is accurate and true based on the research and development work carried out by **ReadyMED**[®], Chaitanya Agro Biotech, Malkapur, Maharashtra. The products are neither intended for any therapeutic use for animal or human nor for any other *in-vivo* applications. The **ReadyMED**[®] products are only meant to be used for the laboratory, diagnostic, research, or further manufacturing purpose only. These technical outcomes should not be considered as the warranty of any kind expressed or implied, and no liability is accepted for infringement of any patent.

CHAITANYA AGRO BIOTECH PVT. LTD. An ISO 11134:2014, ISO 13485:2016, ISO 9001:2015 CE, CIN NO.: U24210MH1995PTC095220S,
S. No. 120/2, Laxmi Nagar, Umbarnala Road, Malkapur-443101, Dist.: Buldana (M.S.) India. Customer Care +91- 8669083859
rdmsales@chaitanyagroupindia.com, mkt.cabt@chaitanyagroupindia.com, www.chaitanyagroupindia.com