



2XYT Agar

RDM-2XYT-01

Principle

The tryptone serves the source of nitrogen, yeast extract serves the source of nitrogen and vitamins, and sodium chloride balances the osmotic balance. Agar is solidifying agent. The 2xYT agar supports the vigorous growth of *E. coli*, necessary for the cultivation of microphages.

Use: Recommended for maintenance and cultivating recombinant strains of *Escherichia coli* and propagation of bacteriophage.

Contents*

Ingredients	Gram/Litre
Tryptone	16.000
Yeast Extract	10.000
Sodium Chloride	5.000
Agar	15.000
pH at 25°C	7.0 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 46.00 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. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Pharmaceutical samples, clinical and non-clinical 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	Beige colored free flowing, homogeneous powder
Reaction of 4.6% solution	7.00 ±0.2 at 25 °C
pH	6.80- 7.20
Gelling strength	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Cream to yellow 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

Organism	ATCC	Inoculum	Growth	Recovery %	Incubation
<i>Escherichia coli</i>	8739	50-100	Luxurious	70-80 %	33-37 °C, 18-48 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. Davis, L.G., M.D. Dibner and J. F. Battey, (1986), *Basic methods in molecular biology*, Elsevier, New York.
3. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
4. Rand, M. C., Arnold E. Greenberg, and Michael J. Taras, (1976), *Standard methods for the examination of water and wastewater*. Prepared and published jointly by American Public Health Association, American Water Works Association, and Water Pollution Control Federation.

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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