

DEXTROSE AGAR

Dehydrated culture medium

1 - INTENDED USE

For cultivating a wide variety of microorganisms with or without added blood.

2 - COMPOSITION - TYPICAL FORMULA*

(AFTER RECONSTITUTION WITH 1 L OF WATER)

Beef extract	3 g
Tryptose	10 g
Glucose	10 g
Sodium chloride	5 g
Agar	15 g

*The formula may be adjusted and/or supplemented to meet the required performances criteria.

3 - PRINCIPLE OF THE METHOD AND EXPLANATION OF THE PROCEDURE

Dextrose Agar is based on the formulation proposed by Norton¹ in 1932 as a basal medium containing 0.5-1% dextrose with 5% defibrinated blood for the isolation of many fastidious bacteria.

Dextrose Agar can be used as it is, with the addition of 5% of sterile defibrinated blood for the preparation of blood agar, or heated to 80°C for the preparation of chocolate agar.

The medium is not suitable for demonstrating the haemolytic properties of microorganisms, due to the high glucose content.

Tryptose and beef extract provide nitrogen, carbon, minerals and amino acids for the microbial growth. Sodium chloride maintains the osmotic balance. Glucose is a source of carbon and energy and its high concentration allows the production of early, abundant organism growth. Agar is the solidifying agent.

4 - DIRECTIONS FOR MEDIUM PREPARATION

Suspend 43 g in 1000 mL of cold purified water. Heat to boiling with frequent agitation and sterilise by autoclaving at 121°C for 15 minutes. Cool to 47-50°C, if required add the suitable enrichment, mix well and distribute into sterile Petri dishes

5 - PHYSICAL CHARACTERISTICS

Dehydrated medium appearance	beige, fine, homogeneous, free-flowing powder
Solution and prepared plates appearance	yellow, clear
Final pH at 20-25 °C	7.2 ± 0.2

6 - MATERIALS PROVIDED - PACKAGING

Product	Type	REF	Pack
Dextrose Agar	Dehydrated medium	4013852	500 g (11.6 L)

7 - MATERIALS REQUIRED BUT NOT PROVIDED

Autoclave, water-bath, sterile loops and swabs, incubator and laboratory equipment as required, sterile Petri dishes, controlled atmosphere generators and jars, Erlenmeyer flasks, ancillary culture media and reagents.

8 - SPECIMENS

For sample collection, storage, transport and preparation, follow good laboratory practice and refer to applicable International Standards and regulations.

9 - TEST PROCEDURE

The user is responsible for choosing the appropriate incubation time, temperature and atmosphere depending on the processed specimen, the requirements of organisms to be recovered and the local applicable protocols.

10-READING AND INTERPRETATION

The presence of microorganisms is indicated by the appearance of colonies of varying morphology and size. The characteristics of the growths are closely related to the type or types of cultivated microorganisms.

11 - USER QUALITY CONTROL

All manufactured lots of the product are released for sale after the Quality Control has been performed to check the compliance with the specifications. However, the end user can perform its own Quality Control in accordance with the local applicable regulations, in compliance with accreditation requirements and the experience of the Laboratory. Here below are listed some test strains useful for the quality control.

CONTROL STRAINS	INCUBATION T° / T / ATM	EXPECTED RESULTS
<i>S. aureus</i> ATCC 25923	35-37°C / 18-24h / A	growth
<i>E. coli</i> ATCC 25922	35-37°C / 18-24h / A	growth

A: aerobic incubation; ATCC is a trademark of American Type Culture Collection

12 - PERFORMANCES CHARACTERISTICS

Prior to release for sale a representative sample of all lots of dehydrated Dextrose Agar is tested for productivity by comparing the results with a previously approved Reference Batch (RB).

The productivity characteristics are tested by semi-quantitative ecometric technique with the following strains: *S. aureus* ATCC 25923, *S. epidermidis* ATCC 12228, *E. faecalis* ATCC 19433, *S. marcescens* ATCC 8100, *C. albicans* ATCC 18804, *A. brasiliensis* ATCC 9642. After incubation at 37°C for 18-24 hours or at 25°C for 72 hours the tested strains exhibit good growth.





13 - LIMITATIONS OF THE METHOD

- Biochemical, immunological, molecular, or mass spectrometry testing should be performed on isolates, from pure culture, for complete identification.

14 - PRECAUTIONS AND WARNINGS

- This product is for Laboratory use and for professional use only; it is to be used by adequately trained and qualified laboratory personnel, observing approved biohazard precautions and aseptic techniques.
- Dehydrated media must be handled with suitable protection. Before use, consult the Safety Data Sheet.
- This culture medium contains raw materials of animal origin. The *ante* and *post mortem* controls of the animals and those during the production and distribution cycle of the raw materials, cannot completely guarantee that this product doesn't contain any transmissible pathogen. Therefore, it is recommended that the culture medium be treated as potentially infectious, and handled observing the usual specific precautions: do not ingest, inhale, or allow to come into contact with skin, eyes, mucous membranes. Download the TSE Statement from the website www.biolifeitaliana.it, describing the measures implemented by Biolife Italiana for the risk reduction linked to infectious animal diseases.
- Apply Good Manufacturing Practice in the production process of prepared media.
- All laboratory specimens should be considered infectious.
- The laboratory area must be controlled to avoid contaminants such as culture medium or microbial agents.
- Sterilize all biohazard waste before disposal. Dispose the unused medium and the sterilized plates inoculated with samples or microbial strains in accordance with current local legislation.
- Do not use the culture medium as active ingredient for pharmaceutical preparations or as production material intended for human and animal consumption
- The Certificates of Analysis and the Safety Data Sheet of the product are available on the website www.biolifeitaliana.it.
- The information provided in this document has been defined to the best of our knowledge and ability and represents a guideline for the proper use of the product but without obligation or liability. In all cases existing local laws, regulations and standard procedures must be observed for the examination of samples collected from human and animal organic districts, for environmental samples and for products intended for human or animal consumption. Our information does not relieve our customers from their responsibility for checking the suitability of our product for the intended purpose.

15 - STORAGE CONDITIONS AND SHELF LIFE











Upon receipt, store at +10°C /+30°C away from direct light in a dry place. If properly stored, it may be used up to the expiration date. Do not use beyond this date. Avoid opening the bottle in humid places. After use, the container must be tightly closed. Discard the product if the container and/or the cap are damaged, or if the container is not well closed, or in case of evident deterioration of the powder (colour changes, hardening, large lumps).

The user is responsible for the manufacturing and quality control processes of prepared media and for the validation of the shelf life of the finished products, according to the type (plates/tubes/bottles), the supplements used and the storage method (temperature and packaging).

16 - REFERENCES

- Norton. 1932. J. Lab. Clin. Med. 17:558.

TABLE OF APPLICABLE SYMBOLS

 or  Catalogue number	 Batch code	 Manufacturer	 Store in a dry place	 Use by
 Temperature limitation	 Contents sufficient for <n> tests	 Consult Instructions for Use	 Keep away from direct light	

REVISION HISTORY

Version	Description of changes	Date
Revision 1	Updated layout and content	2022/07

Note: minor typographical, grammatical, and formatting changes are not included in the revision history.

