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Yeast Starch Glucose Agar

Recommended for enumeration and cultivation of Lactobacilli in pharmaceutical preparations.

REF: BS.1/YS01.100.0100	100 Gram	REF: BS.1/YS01.250.0250	250 Gram
REF: BS.1/YS01.500.0500	500 Gram		

CLINICAL SIGNIFICANCE

Yeast Starch Glucose Agar is a medium used for the identification of mesophilic and thermophilic aerobic bacteria in food and other materials by promoting sporulation. This medium complies with the recommendations of UNE-EN-13704 standard for the evaluation of sporicidal activity of chemical disinfectants

METHOD PRINCIPLE

Yeast Starch Glucose Agar is prepared according to the formula described by Evans and Niven (1) and Rogosa et.al. (4) and is used for enumeration and cultivation of Lactobacilli in pharmaceutical preparations. The medium contains variety of salts like sulphates, phosphates to support the growth of Lactobacilli. Necessary nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and essential growth nutrients for Lactobacilli are provided by peptone and yeast extract. Glucose is the source of fermentable carbohydrate. The metallic salts are sources of ions essential for the replication of lactic acid bacteria.

MEDIA COMPOSITION

Ingredients	g\L
Peptone	5.000 gm
Yeast extract	5.000 gm
Dextrose (Glucose)	2.000 gm
Potassium dihydrogen phosphate	0.500 gm
Dipotassium hydrogen phosphate	0.500 gm
Magnesium sulphate	0.300 gm
Sodium chloride	0.010 gm
Manganese sulphate	0.010 gm
Zinc sulphate	0.0016 gm
Copper sulphate	0.0016 gm
Cobalt sulphate	0.0016 gm
Agar	15.000 gm

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
  S56: dispose of this material and its container at hazardous or Special waste collection point.
  S57: use appropriate container to avoid environmental contamination.
  S61: avoid release in environment.

For further information, refer to the Yeast Starch Glucose agar material safety data sheet.

MEDIA PREPARATION, STORAGE AND STABILITY

BioScien Yeast Starch Glucose Agar dehydrated media are stable until expiration date stated on label when properly stored 10-30°C. Hydrated Glucose Yeast Extract Agar media is prepared by suspend 28.32 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.
Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Final pH 7.2 ± 0.2 at 25°C

Deterioration
The color of ***BioScien*** Yeast Starch Glucose Agar medium is Light yellow to beige homogeneous free flowing powder, dehydrated medium Yellow coloured, clear to slightly opalescent gel forms in Petri plates. After addition 2.83% w/v aqueous solution at 25°C. pH 7.2±0.2

SPECIMEN COLLECTION AND PRESERVATION

Pharmaceutical samples

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile cups
- Sterile petri-dishes
- Incubator
- Autoclave

CHARACTERISTICS OF THE COLONIES

Cultural characteristics observed after an incubation at 35-37°C for 24 - 48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Lactobacillus acidophilus ATCC 4356 (00098*)	50-100	good-luxuriant	>=50%
Lactobacillus delbrueckii subsp. bulgaricus ATCC 11842 (00102*)	50-100	good-luxuriant	>=50%
Lactobacillus casei ATCC 9595	50-100	good-luxuriant	>=50%

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact ***BioScien*** technical support.

PERFORMANCE CHARACTERISTICS [4]

Performance of the medium is expected when used as per the direction on the label within the when stored at recommended temperature.

REFERENCES

1. Evans and Niven, 1951, J. Bacteriol., 62:599.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Rogosa M., Mitchell J. A. and Wiseman R. F., 1951, J. Bacteriol., 62 :132.
5. Seppo Salminen, Atte von Wright and Arthur Ouweh and, Lactic Acid Bacteria., Microbiological and Functional Aspects, 3rd Ed., Marcel and Dekker. NY. Basel.

SYMBOLS IN PRODUCT LABELLING			
IVD	For in-vitro diagnostic use	Σ	Number of <n> test in the pack
LOT	Batch Code/Lot number		Caution
REF	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		