

TECHNICAL DATA SHEET

GN Broth (Medium 11)

Principle

GN Broth is recommended by the Indian Pharmacopoeia (2017) for the selective isolation of *Shigella* species with subsequent isolation on a selective medium, XLD Agar (RDM-XLDA-01). The medium contains polypeptone peptone, which provides amino acids and other nitrogenous substances essential for bacterial growth. The selectivity is provided by sodium citrate and sodium deoxycholate which inhibit grampositive and some gram-negative bacteria such as coliforms. Phosphates serve as a buffering system. Sodium chloride maintains osmotic equilibrium.

Use: For enrichment of *Shigella* Spp. from pharmaceutical products.

Contents*

Ingredients	Gram/Litre
Polypeptone peptone	20.00
Glucose	1.00
Sodium Citrate	2.00
Sodium Deoxycholate	0.50
Dipotassium Phosphate	4.00
Monopotassium Phosphate	1.50
Sodium Chloride	5.00
pH at 25°C	7.00 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 34.00 grams in 1000 ml distilled water. Mix well and allow standing for 15 minutes with continuous shaking, boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Dispense in sterile test tubes or flasks as desired, cool it to 42-45°C and inoculate test sample aseptically.

Specimens' types analyzed

Pharmaceutical and clinical samples etc.

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ISO 9001-2008 Certified Company

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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 3.40% solution	7.0 ±0.2 at 25 °C
pH	6.80- 7.20
Color and clarity of ready medium	Light amber colored opalescent solution
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

Cultural characteristics observed after inoculation in GN Broth and then subculture on XLD Agar (RDMXLDA-01) and incubation at 30-35°C for 24-48 hours.

Organism	ATCC	Inoculum (CFU)	Growth	Recovery	Color on XLD agar
<i>Shigella boydii</i>	8700	50-100	Luxuriant	≥ 50%	Red translucent
<i>Staphylococcus aureus</i>	25923	50-100	Inhibited	---	---

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Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label.

Note: Sterilize media immediately after reconstitution.

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

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