

TECHNICAL DATA SHEET

Shigella Broth Base

Principle

Shigella Broth Base composed of tryptose, sodium chloride, Dipotassium phosphate, potassium phosphate, dextrose and polysorbate 80. Tryptose is nitrogen source and provide essential growth nutrients. Dextrose is the fermentable carbohydrate. Sodium chloride maintains osmotic equilibrium. Phosphates act as buffering agent. Polysorbate 80 provides growth factors and novobiocin is inhibitory for growth of accompanying microflora.

Use: For the isolation and cultivation of *Shigella* species from food stuff.

Contents*

Ingredients	Gram/Litre
Tryptose	20.000
Sodium chloride	5.000
Dipotassium phosphate	2.000
Potassium phosphate	2.000
Dextrose	1.000
Polysorbate 80	1.500
pH at 25°C	7.0 ±0.2

*** Formula adjusted for optimum performance and parameters**

Directions: Dissolve 31.50 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure and 121 °C for 15 minutes, cool it to 42-45 °C add Novobiocin (0.550 mg), mix well and distribute aseptically in sterile test tubes and inoculate test sample aseptically.

Specimens types analyzed

Pharmaceutical samples, clinical and non-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 3.15% solution	7.0 $\pm$ 0.2 at 25 °C
pH	6.80 - 7.20
Color and clarity of ready medium	Light amber colored clear solution
Growth Promotion properties	Best at $\leq$ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at $\leq$ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours with added 500 mg of novobiocin.

Organism	ATCC	Inoculum	Growth
<i>Shigella dysenteriae</i>	13313	50-100	Luxurious
<i>Shigella flexneri</i>	12022	50-100	Luxurious
<i>Staphylococcus aureus</i>	25923	50-100	Inhibited

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.

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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. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), (2015), *Standard Methods for the Examination of Water and Wastewater*, 23rd Ed., APHA, Washington, D.C.
3. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
4. Downes F. P. and Ito K., (Ed.), (2001), *Compendium of Methods for the Microbiological Examination of Foods*, 4th Ed., American Public Health Association, Washington, D.C.
5. Hale T. L., Keusch G. T., (1996), *Shigella*. In: *Barons Medical Microbiology* (Barron S et al, Eds.), 4th Ed., Univ of Texas Medical Branch.

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