OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

Loeffler Medium Base

Principle

Loeffler medium is formulated by Loeffler (1887) and further modified by Perry and Petran (1939). The medium is used as enrichment medium for primary and secondary isolation and cultivation of fastidious pathogenic microorganism. The medium is composed of special peptone, meat extract, sodium chloride and dextrose. In medium special peptone, meat extract provides essential growth nutrients. Dextrose is the source of fermentable carbohydrate and energy. Sodium chloride maintains cell integrity. For proteolytic activity the medium is fortified with hoarse serum.

Use: For the cultivation of Corynebacterium diphtheriae from clinical samples and confirmation of chromogenesis, proteolysis and the production of ascospores.

Contents*

Ingredients	Gram/Litre
Special peptone	2.500
Meat Extract#	2.500
Sodium Chloride	1.250
Dextrose	2.500
pH at 25˚C	7.3 ±0.2

*** Formula adjusted for optimum performance and parameters # Equivalent to Beef Extract**

Directions: Dissolve 8.75 grams in 250 ml distilled water. If necessary, boil the medium to dissolve the medium completely. Sterilize by autoclaving at 10 lbs pressure (115 °C) for 15 min, cool it to 42-45 °C add 750 ml of sterile Horse Serum. Mix well and distribute aseptically in desired. Sterilize the medium by inspissation at 80-85°C for 2 hours in free-flowing steam for at least 3 consecutive days.

Specimens' types analyzed

Pharmaceutical samples, clinical and non-clinical samples etc.

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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 3.50% solution	**7.3 ±0.2 at 25 ˚C**
pH	**7.10- 7.50**
Color and clarity of ready medium	**Basal: Light amber colored clear to slightly opalescent solution.** **After addition of horse serum: Off-white colored opaque solution**
Negative control	**Performed using sterile distilled water**

Different Microbial Response

Cultural characteristics observed after added 750ml horse serum, and incubation at 35-37°C for 24-48 hours

Organism	ATCC	Inoculum	Growth	Colonies characteristic
Corynebacterium diphtheriae	**13812**	**50-100**	**Poor**	**--**
Pseudomonas aeruginosa	**27853**	**50-100**	**Luxurious**	**Green colonies with proteolysis**
Staphylococcus aureus	**25923**	**50-100**	**Luxurious**	**Yellow to gold colonies**

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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

1. **Atlas, R. M. (2005).** ***Handbook of media for environmental microbiology*****. CRC press.**
2. **Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015)** ***Manualof Clinical Microbiology*****, 11th Edition. Vol. 1.**
3. **Loeffler F., (1887),** ***Zentralb. Bakteriol. Parasitenkd., 2:102.***
4. **MacFaddin J. F., (1985), Media for Isolation-Cultivation-Maintenance of Medical Bacteria,** ***Vol. I, Williams and Wilkins, Baltimore.***
5. **Perry and Petran, (1939),** ***J. Lab. Clin. Med., 25:71.***

Disclaimer:

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