

CM 21003 – LOEFFLER MEDIUM BASE

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

Loeffler Medium was originally devised by Loeffler and was further modified by Perry and Petran and Buck. Loeffler medium enhances primary and secondary isolation and cultivation of fastidious pathogenic microorganisms especially from nose and throat. It also restores virulence and other identifying properties (microscopic and colonial) after they have been lost due to prolonged incubation or repeated sub culturing. The high serum content helps in determining proteolytic activity of organisms. It is also used for demonstration of pigmentation and ascospores.

COMPOSITION

Ingredients	Gms / Ltr
Peptone, special	2.500
Beef extract	2.500
Sodium chloride	1.250
Dextrose (Glucose)	2.500

PRINCIPLE

This medium contains Peptone special, Beef extract which provide essential growth nutrients. Dextrose is the source of fermentable carbohydrate and energy. Rub the swabs directly over the surface of medium and after incubation; prepare the smears from surface of slope. For proteolysis testing, inoculate slant and prior to incubation, flood the slant with Brewer Thioglycollate Medium. Incubation should be carried out for 3-4 days or much longer for appearance of proteolysis. Loeffler Medium should be used in parallel with Serum Tellurite Agar for selective isolation of *Corynebacteria*.

INSTRUCTION FOR USE

- Dissolve 8.75grams in 250 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 10psi pressure (115°C) for 20 minutes.
- Cool to 45-50°C and aseptically add 750 ml of sterile Horse Serum.
- Mix well and aseptically dispense into sterile tubes.
- Sterilize the medium by inspissation at 80-85°C for 2 hours in free flowing steam for atleast 3 consecutive days.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Basal: Light amber coloured clear to slightly opalescent solution. After addition of horse serum: Off-white coloured opaque solution.
pH (at 25°C)	: 7.3 ± 0.2

INTERPRETATION

Cultural characteristics observed with added 750ml horse serum after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Corynebacterium diphtheriae	11913	50-100	Fair-good	35-37°C	24-48 Hours
Pseudomonas aeruginosa	10145	50-100	Good (green colonies with proteolysis)	35-37°C	24-48 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Good (yellow to gold colonies)	35-37°C	24-48 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Buck, 1949, J. Lab. Clin. Med., 34:582.
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. Loeffler F., 1887, Zentralb. Bakteriell. Parasitenkd., 2:102.
5. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
6. Perry and Petran, 1939, J. Lab. Clin. Med., 25:71.

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative MedNet GmbH Buckstrasse 10, 48163 Münster, Germany	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only



