

Product Data Sheet

LOEFFLER MEDIUM BASE

Product No. GB-DCM-00344-1A

INTENDED USE

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

PRODUCT SUMMARY

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.

Product Specifications

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 8.75 grams 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.

 7.3 ± 0.2

- 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.

pH (at 25°C) :

Appearance of prepared : Basal: Light amber coloured clear to slightly opalescent solution. After addition of horse serum: Off-white coloured opaque solution.

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

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.

This product is for research use only.

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