TM 879 – TELLURITE BLOOD AGAR BASE

INTENDED USE

For selective isolation and cultivation of *Corynebacterium* species.

PRODUCT SUMMARY AND EXPLANATION

Corynebacterium is a genus of gram-positive, facultatively anaerobic, non-motile bacteria that exhibits a fermentative metabolism (carbohydrates to lactic acid) under certain conditions. *Corynebacteria* constitute a diverse group of bacteria that includes saprophytic associations as well as plant and animal pathogens. Most species are normal flora of humans present virtually at all anatomic sites. Many species of Corynebacteria can be isolated from various places such as soil, water, blood, and human skin. Pathogenic strains of Corynebacteria can infect plants, animals, or humans. Tellurite Blood Agar is a selective medium used for isolation and cultivation of *Corynebacterium* species. It is selective due to the presence of inhibitor and differential by means of ability of organism to reduce potassium tellurite.

COMPOSITION

Ingredients	Gms / Ltr
Biopeptone	10.000
Sodium chloride	5.000
Dipotassium hydrogen phosphate	4.000
Corn starch	1.000
Monopotassium phosphate	1.000
Agar	10.000

PRINCIPLE

Biopeptone provides nitrogenous compounds. Sodium chloride maintains the osmotic equilibrium of the medium while phosphates buffer the medium. Corn starch neutralizes the toxic metabolites. Haemoglobin and Vitamino Growth Supplement stimulate good growth of *Corynebacterium*. Potassium tellurite acts as a selective agent and has inhibitory activity against most gram-positive and gram-negative bacteria except *Corynebacterium* species. *C.diphtheriae* reduces potassium tellurite to tellurium and thereby produce gray-black coloured colonies. Throat or nasal swab is directly inoculated and streaked on this agar medium.

INSTRUCTION FOR USE

- Suspend 31 grams in 500 ml distilled water to make a double strength base.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Aseptically add sterile prepared Haemoglobin solution (10 grams in 490ml distilled water) and sterile reconstituted contents of one vial of Vitamino Growth Supplement and 1%Potassium Tellurite.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Yellow coloured clear to slightly opalescent gel. With the addition of haemoglobin solution: Reddish brown coloured, opaque gel forms in Petri plates.

pH (at 25°C) : 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation with added Haemoglobin solution, Vitamino Growth Supplement and 1% Potassium Tellurite.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Corynebacterium diphtheriae	11913	50-100	Good-luxuriant	>=50%	Grey-black	35-37°C	48 Hours
Escherichia coli	25922	>=10^3	Inhibited	0%	-	35-37°C	48 Hours

PACKAGING:

In pack size of 100gm 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.

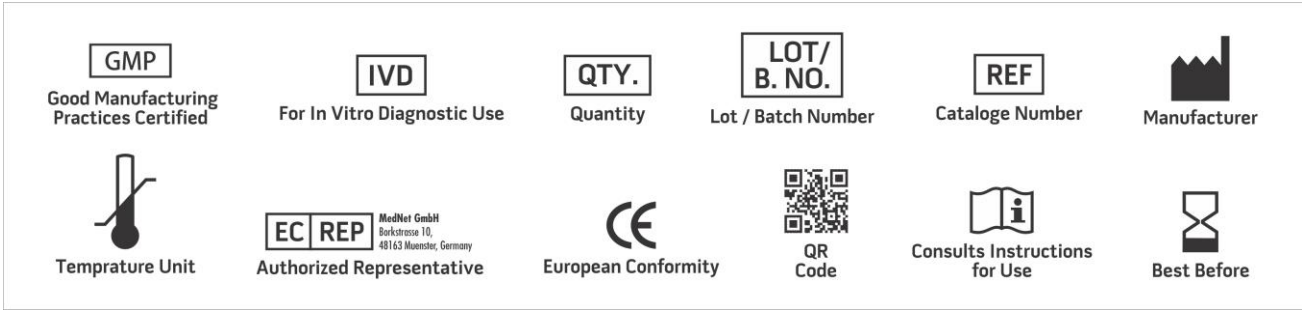
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Scott T. J., 1981, Microbiological Media, A Manual of Products and Procedures, Fieskeville, TI : Scott Laboratories, Inc.
2. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.



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

***For Lab Use Only**

Revision: 08 Nov., 2019