

TM 021 – POLYMYXIN SEED AGAR (ANTIBIOTIC ASSAY MEDIUM NO.10) (DOUBLE PACK)

INTENDED USE

For assay of Polymyxin-B, Carbenicillin, Colistin and Colistimethate Sodium.

PRODUCT SUMMARY AND EXPLANATION

Antibiotic Assay media are used in the performance of antibiotic assays. Grove and Randall have elucidated those antibiotic assays and media in their comprehensive treatise on antibiotic assays. Schmidt and Moyer have reported the use of antibiotic assay medium for the liquid formulation used in the performance of antibiotic assay. Freshly prepared plates should be used for antibiotic assays. Test organisms are inoculated in sterile seed agar cooled to 40-45°C and spread evenly over the surface of solidified base agar. After incubation the concentration of the antibiotic being assayed is determined by measuring the zone of inhibition obtained, with that of reference standard antibiotic. All conditions in the microbiological assay must be carefully controlled. The use of standard culture media in the test is one of the important steps for good results.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Tryptone	17.000
Soya peptone	3.000
Dextrose	2.500
Sodium chloride	5.000
Dipotassium hydrogen phosphate	2.500
Agar	12.000
Part II	
Polysorbate 80	10 ml

PRINCIPLE

This medium consists of Tryptone and soya peptone that provides the nutrients and growth factors. Sodium chloride maintains the osmotic equilibrium. Dipotassium hydrogen phosphate provides the buffering system. Dextrose serves as the source of energy.

INSTRUCTION FOR USE

- Dissolve 42.0 grams in 1000 ml purified/distilled water containing 10 ml Polysorbate 80.
- 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.
- Mix well and pour into sterile Petri plates or dispense as desired.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Medium amber coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Antibiotic assayed	Incubation Temperature	Incubation Period
<i>Bordetella bronchiseptica</i>	4617	50-100	Luxuriant	>=70%	Polymyxin B, Colistimethate sodium, Colistin	35-37°C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	25619	50-100	Luxuriant	>=70%	Carbenicillin	35-37°C	18-24 Hours

PACKAGING:

In pack size of 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. Grove and Randall, 1955, Assay Methods of Antibiotics Medical Encyclopedia, Inc. New York.
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. Schmidt and Moyer, 1944; J. Bact, 47:199.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

*For Lab Use Only
Revision: 08 Nov., 2019

