CM 20150 – ANTIBIOTIC ASSAY MEDIUM NO. 9 (as per USP)

INTENDED USE

For microbiological plate assay of Carbenicillin, Colistimethate sodium and Polymyxin-B.

PRODUCTSUMMARY AND EXPLANATION

Thismedium is widely recommendedfor assay of Polymyxin B, Colistimethate sodium and Colistin using Bordetella bronchiseptica as test organims. Carbenicillin assay is also performed using this medium with Pseudomonas aeruginosa. Themedium is formulated in accordance with USP and CFR and numerically identical with the name assigned by Groove andRandall.

Toperform the antibiotic assay, the Base Agar should be prepared on the same day as the test. For the cylinder method, abase layer of 21 ml is required. Once the base medium has solidified, seed layer inoculated with the standardized culture canbe overlaid. Even distribution of the layer is important.

COMPOSITION

Ingredients	Gms / Ltr
Pancreatic digest of casein	17.000
Papaic digest of soybean	3.000
Dextrose	2.500
Sodium chloride	5.000
Dibasic potassium phosphate	2.500
Agar	20.000

PRINCIPLE

Pancreatic digest of casein and papaic digest of soybean meal serves as source for essential nutrients. Dextrose stimulates the growth by providing carbon and energy. Phosphates in the medium enhance buffering action and sodium chloride maintains osmotic equilibrium in the medium. Agar concentration provides control over the diffusion activity of Polymixin Bantibiotics and provides solid substratum to support the seed agar layer.

INSTRUCTIONFOR USE

Dissolve 50 grams in1000 ml purified/distilled water.
Heat to boiling to dissolve the medium completely.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow coloured homogeneous free flowing powder.
Appearance of prepared medium	: Light amber coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.2±0.1

INTERPRETATION

Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Antibiotics assayed	Incubation Temperature	Incubation Period
Bordetella bronchiseptica	4617	50-100	Luxuriant	>=70%	Polymyxin B, Colistimethate sodium, Colistin	36-37.5°C	18-24 Hours
Pseudomonas aeruginosa	25619	50-100	Luxuriant	>=70%	Carbenicillin	36-37.5°C	18-24 Hours

PACKAGING:

Inpacksizeof500 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.

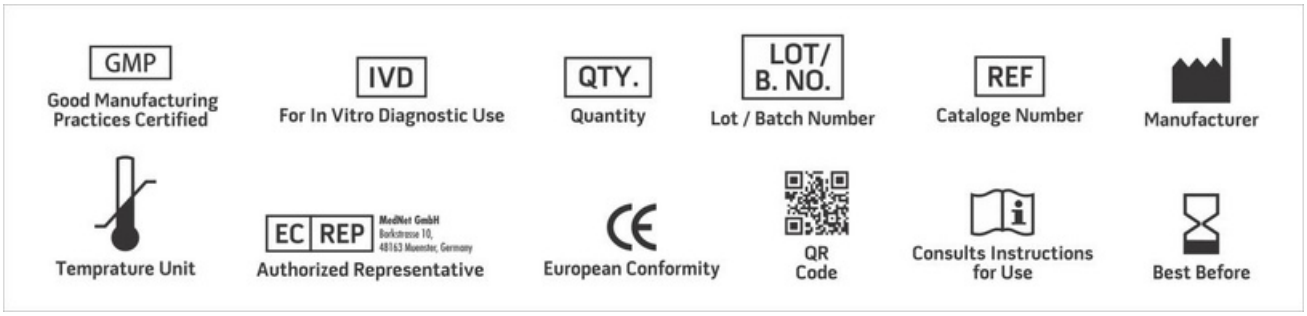
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. United States Pharmacopoeia, 2011, US Pharmacopoeial Convention, Inc., Rockville, MD.
2. Tests and Methods of Assay of Antibiotics and Antibiotic containing Drugs, FDA, CFR, 1983 Title 21, Part 436, Subpart D, Washington, D.C.: U.S. Government Printing Office, paragraphs 436, 100-436, 106, p. 242-259, (April1).
3. Grove and Randall, 1955, Assay Methods of Antibiotics Medical Encyclopaedia, Inc. New York.



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

*For LabUse Only