

ANTIBIOTIC MEDIUM N°8 (BASE AGAR WITH LOW pH) USP

CAT N°: 1004

For use in the plate assay of tetracycline and other antibiotics

FORMULA IN g/l

Gelatin Peptone	6.00	Beef Extract	1.50
Yeast Extract	3.00	Bacteriological Agar	15.00

Final pH 5.7 ± 0.1 at 25°C

This medium has the same formula as Antibiotic Medium N° 2 (Cat. 1002) and Antibiotic Medium N° 5 (Cat.1 524), with the difference that the pH of the final medium has been adjusted to 5.7.

PREPARATION

Suspend 25.5 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121°C for 15 minutes, cool at 45 - 50°C and dispense into sterile Petri dishes. Prepare the inoculum for assay by washing growth from a fresh 24 - 48 hours agar slant, using sterile distilled water or saline water. The prepared medium should be stored at 8-15°C. The color is amber, slightly opalescent.

The dehydrated medium should be homogeneous, free-flowing and cream in color. If there are any physical changes, discard the medium.

USES

ANTIBIOTIC MEDIUM N° 8 is used to prepare the base layer for the assay of tetracycline's and other antibiotics.

Gelatin peptone, Yeast extract and Beef extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Bacteriological Agar is the solidifying agent.

The potency of an antibiotic can be demonstrated under appropriate conditions by its inhibitory effect on microorganisms. Reduction in antimicrobial activity may reveal changes not demonstrated by chemical methods.

Plates are prepared and incubated following the FDA and the USP guidelines. The use of standardized culture media and strict control of all test conditions are essential requirements in the microbiological assay of antibiotics in order to obtain satisfactory test results.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 35 ± 2°C and observed after 24 hours.

Microorganisms	Growth	Inhibition zones
<i>Bacillus cereus</i> ATCC 11778	Good	Tetracycline
<i>Micrococcus luteus</i> ATCC 10240	Good	Tetracycline, Chlortetracycline

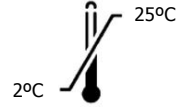
BIBLIOGRAPHY

Grove and Randall. Assay Methods of Antibiotics, Medical Encyclopedia Inc. New York 1955. United States Pharmacopoeia Convention. 1955. The United States Pharmacopoeia, 23rd Ed. Biological Tests and Assays, p. 1690-1696.



STORAGE

Once opened keep powdered medium closed to avoid hydration.



2°C