CM 22348 - R2A BROTH

INTENDED USE
For cultivation and maintenance of heterotropic bacteria from potable water.

PRODUCT SUMMARY AND EXPLANATION
R-2A Broth is similar toR-2A Agar exceptagar. Total count recommended for the bacterial examination of potable waters gives an estimate of the aerobic and facultatively anaerobic bacteria, which grow best at 35°C in a rich medium. R-2A Broth enables better recovery of these bacteria from treated waters under different incubation conditions. Many bacteria from natural waters, which contain limited nutrients at ambient temperature, grow best on the media with less nutrient levels. They grow better at the temperatures below the routine laboratory incubation temperatures of 35 to 37°C.
The total bacterial count of drinking water is determined by plate count on a nutritionally rich medium. However, all organisms present are not able to grow on them, either because they are slow growers or because they can't grow on that media. For this reason, a nutritionally reduced medium was described. R-2A Agar is a modification of this medium.

COMPOSITION

Ingredients	Gms / Ltr
Casein Acid Hydrolysate	0.500
Yeast extract	0.500
Proteose peptone	0.500
Dextrose	0.500
Starch soluble	0.500
Dipotassium phosphate	0.300
Magnesium sulphate	0.024
Sodium pyruvate	0.300

PRINCIPLE
This medium consists of casein acid hydrolysate, yeast extract, biopeptone as source of essential growth factors required for metabolism of the bacteria. Dextrose is the energy source. Starch acts as a neutralizer that neutralizes any toxic metabolites, if present. Phosphate buffers the medium while sodium pyruvate supplies additional nutrition. Magnesium sulphate serves as a source of ions. Due to the presence of the above mentioned ingredients these media allow the growth of stressed and chlorine tolerant bacteria present in treated waters.

INSTRUCTION FOR USE
InoculatethesampleandIncubateatspecified temperature and time.

QUALITY CONTROL SPECIFICATION

Appearance ofpreparedmedium	:	Yellow coloured, clear solution in tubes..
Quantity of Medium	:	10 ml of medium in tubes.
pH (at 25°C)	:	7.2 ± 0.2
Sterility Check	:	Passes release criteria

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Candida albicans	10231	10-100	Good-luxuriant	35-37°C	24-72 Hours
Escherichia coli	25922	50-100	Good-luxuriant	35-37°C	24-72 Hours
Salmonella Enteritidis	13076	50-100	Good-luxuriant	35-37°C	24-72 Hours
Enterococcus faecalis	29212	50-100	Good-luxuriant	35-37°C	24-72 Hours
Salmonella Typhi	6539	50-100	Good-luxuriant	35-37°C	24-72 Hours

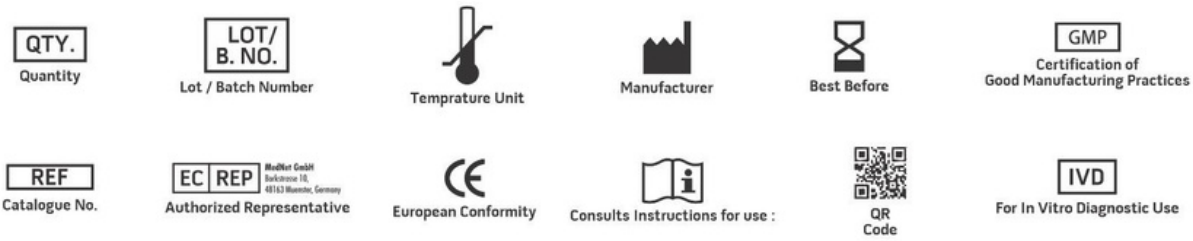
PACKAGING:
Pack of 25 Ready-To-Use Liquid Medium tubes containing 10 ml in each tube.
Pack of 50 Ready-To-Use Liquid Medium tubes containing 10 ml in each tube.

STORAGE
Onreceipt, store tubes in the dark at 10-25°C. Avoid freezing and overheating. Do not open until ready to use. Minimize exposure to light. Tubed media stored as labeled until just prior to use may be inoculated up to the expiration date and incubated for the recommended incubation times. Allow the medium to warm to room temperature before inoculation.

DISPOSAL
Usermustensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques.

REFERENCES

1. Reasoner andGeldreich, 1985, Appl. Environ. Microbiol., 49:1.
2. Stark and McCoy. 1938. Zentralbl. Bacteriol. Parasitenkd. Infectionskr. Hyg. Abt.2 98 : 201
3. Collins and Willoughby, 1962, Arch. Microbiol., 43:294.
4. Greenberg A. E., Trussell R. R. and Clesceri L. S. (Eds.), 1985, Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA, Washington, DC.



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

***For LabUse Only**