TM 1947 – ACTIDIONE AGAR BASE W/O ACTIDIONE

INTENDED USE

For the enumeration and detection of bacteria in specimens containing large numbers of yeasts and moulds.

PRODUCT SUMMARY AND EXPLANATION

Actidione Agar was formulated by Green and Gray which may be used for microbiological investigation during brewing and baking. Actidione (Cycloheximide) at a concentration of 0.001% permits the growth of bacteria and inhibits the growth of most yeasts and moulds except dermatophytes. This medium may be used for the estimation of bacterial contamination of pitching yeast. Addition of penicillin or streptomycin may be used for selective isolation of dermatophytes.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	5.000
Yeast extract	4.000
Dextrose (Glucose)	50.000
Potassium dihydrogen phosphate	0.550
Potassium chloride	0.425
Calcium chloride anhydrous	0.125
Magnesium sulphate	0.125
Ferric chloride	0.0025
Manganese sulphate	0.0025
Bromo cresol green	0.022
Agar	15.000

PRINCIPLE

Tryptone acts as source of nitrogen while yeast extract is a rich reservoir of vitamins. Dextrose in high amount along with mineral salts at acidic pH favours sugar fermentation.

INSTRUCTION FOR USE

- Dissolve 75.25 grams in 1000 ml purified / distilled water.
- 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 and aseptically add 10 mg/l Actidione to the medium.
- Mix well before pouring into sterile Petri plates.

Warning: Cycloheximide (Actidione) is very toxic. Avoid skin contact or aerosol formation and inhalation.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to light green homogeneous free flowing powder.
Appearance of prepared medium : Greenish blue clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 5.5±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

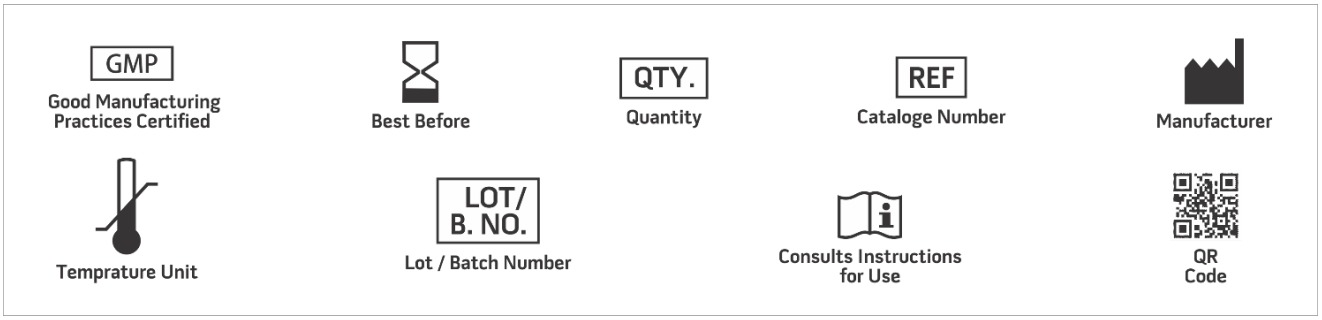
Microorganism	ATCC	Inoculum (CFU/ml)	Growth (Plain)	Recovery	Growth (w/actidione)	Recovery (w/actidione)	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	>=70%	Good-luxuriant	>=50%	25-30°C	40-48 Hours
Lactobacillus fermentum	9338	50-100	Luxuriant	>=70%	Good-luxuriant	>=50%	25-30°C	40-48 Hours
Proteus mirabilis	25933	50-100	Luxuriant	>=70%	Good-luxuriant	>=50%	25-30°C	40-48 Hours
Saccharomyces cerevisiae	9763	50-100	Luxuriant	>=70%	Inhibited	0%	25-30°C	40-48 Hours
Saccharomyces uvarum	9080	50-100	Luxuriant	>=70%	Inhibited	0%	25-30°C	40-48 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. Green, S.R. and Gray, P.P., 1950, Wallerstein Lab. Communication, 13:357.
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.



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

***For Lab Use Only**

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