

## TM 431 – STOCK CULTURE AGAR (AYERS AND JOHNSON AGAR)

### INTENDED USE

For maintenance of cultures of Streptococci and other microorganisms.

### SUMMARY AND EXPLANATION

Maintenance medium are primarily meant to keep cultures alive for an extended length of time. Ayers and Johnson were the first to develop Stock Culture Agar. They discovered that, in addition to promoting luxuriant growth the medium also aided in sustaining the viability of *Streptococci* and other organisms throughout time. There was an observation that *Streptococci* viability is maintained for as long as four months when incubated in this medium at room temperature (25°C). Stock Culture Agar serves its principal goal (i.e. sustaining viability) because of its semi-solid structure, a well-buffered environment, in this medium, several fastidious organisms, such as *Mycobacterium species* and *S. pneumoniae*, thrive well. It can be made especially suited for *Streptococci* maintenance by adding L- Asparagine (1g/l).

### COMPOSITION

Ingredients	Gms / Ltr
Beef Heart Infusion	500.000
Protease peptone	10.000
Gelatin	10.000
Dextrose	0.500
Casein purified	5.000
Sodium citrate	3.000
Disodium hydrogen phosphate	4.000
Agar	7.500

### PRINCIPLE

Sources of nitrogen, vitamins and amino acids provided by the beef heart infusion, proteose peptone, gelatin and casein purified. Dextrose serve as carbon and energy source. Disodium phosphate serves as a buffering agent while sodium citrate acts as a preservative. the inclusion of casein and dextrose, the latter of which acts as a source of energy.

### INSTRUCTION FOR USE

- Dissolve 50 grams (equivalent weight of dehydrated medium per litre) in 1000 ml purified/ distilled water.
- Gently heat the medium just to boiling. Dispense in the tubes.
- Autoclave at 15 psi pressure (121 °C) for 15 minutes.
- Cool to 45-50°C. Mix well and pour into sterilize petri disputes.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Yellow to beige homogeneous coarse powder.

**Appearance of prepared medium** : Light yellow coloured opalescent gel form in tubes.

**pH (at 25°C)** : 7.5 ± 0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Neisseria meningitis</i>	13090	50-100	Luxuriant	35 - 37°C	18-48 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	50-100	Luxuriant	35 - 37°C	18-48 Hours
<i>Streptococcus pneumoniae</i>	6303	50-100	Luxuriant	35 - 37°C	18-48 Hours
<i>Streptococcus pyogenes</i>	19615	50-100	Luxuriant	35 - 37°C	18-48 Hours

**PACKAGING:**

In pack size of 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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. Atlas R. M., 2004, Handbook of Microbiological Media, 3rd Ed., CRCPress, Inc., Boca Raton, Fla
2. Ayers and Johnson, 1924, J. Bacteriol., 9:111.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Barkstrasse 10, 48163 Moenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

**\*For Lab Use Only**  
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