# Technical Information

## Glucose Agar, Modified

## Product Code: DM 2679

**Application: -** Glucose Agar, Modified is the medium recommended for the maintenance of stock cultures of a variety of microorganisms.

## Composition**

| Ingredients | Gms / Litre |
|---|---|
| Peptone special | 5.000 |
| Glucose | 10.000 |
| Agar | 20.000 |
| Final pH ( at 25°C) | 6.5±0.2 |

**Formula adjusted, standardized to suit performance parameters

## Principle & Interpretation

Glucose Agar, Modified is a simple medium supporting growth of wide variety of organisms. It can be used for maintenance of stock cultures of microorganisms (1). This medium has been demonstrated as a universal medium used for germination of spores of fungus - *Colletotrichum lindemuthianum* (2). It has also been used to study growth profile of *Histoplasma capsulatum* and *Candida albicans* along with Sabouraud dextrose agar to study effect of pH and concentration of glucose (3).

Glucose in the medium supply immediate source of carbon. Special peptone provides necessary nitrogenous sources for growth of organisms. Agar acts as a solidifying agent.

## Methodology

Suspend 35.0 grams of dehydrated media powder in 1000 ml distilled water. Mix thoroughly & heat to boiling to dissolve the medium completely. Distribute into tubes or flasks. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Pour into sterile Petri plates or distribute into tubes as desired.

## Quality Control

**Appearance**
Cream to yellow coloured homogeneous free flowing powder

**Gelling**
Firm, comparable with 2.0% Agar gel

**Colour and Clarity**
Light amber coloured, clear to slightly opalescent gel forms in Petri plates / tubes

**Reaction**
Reaction of 3.5% w/v aqueous solution at 25°C. pH : 6.5±0.2

**pH Range**
6.30-6.70

**Cultural Response**
DM2679: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours

| Organism | Inoculum (CFU) | Growth | Recovery |
|---|---|---|---|
| **Cultural Response** | | | |
| *Escherichia coli ATCC 25922* | 50-100 | good-luxuriant | >=70% |

| | | | |
|---|---|---|---|
| *Enterobacter aerogenes ATCC 13048* | 50-100 | good-luxuriant | >=70% |
| *Pseudomonas aeruginosa ATCC 25923* | 50-100 | good-luxuriant | >=70% |
| *Candida albicans ATCC10231* | 50-100 | luxuriant | >=70 % |
| *Histoplasma capsulatum ATCC 10230* | 50-100 | luxuriant | >=70 % |

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.
**Prepared Media**: 2-8° in sealable plastic bags for 2-5 days.

## Further Reading

1. Atlas, R.M.1997. Handbook of microbiological media, 2nd edition, CRC Press Inc. USA.
2. E. Drijfhout and J. Jansen 1989. European Journal of Plant Pathology. Vol.95, No 2. p.119
3. Mathur, R.S., Barnett, H.L. & Lilly, V.G., 1950. Phytopathology Vol. 40: 104.
4. Bartlett, G.W. etal., 1968, Journal of Bacteriology Vol 95.No.6 p. 2171.

## Disclaimer :

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