



Dehydrated Culture Media
Bases / Media Supplements

Technical Information

Cooked Meat Medium w/ Glucose, Hemin and Vitamin K

Product Code: DM 2040

Application: - Cooked Meat Medium w/ Glucose, Hemin and Vitamin K is recommended for cultivation of aerobes and anaerobes, especially pathogenic clostridia and also for the maintenance of stock cultures.

Composition**

Ingredients	Gms / Litre
Beef heart, granules	98.000
Peptic digest of animal tissue	20.000
Sodium chloride	5.000
Glucose	5.000
Yeast extract	5.000
Hemin	0.005
Vitamin K	0.001
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Cooked Meat Medium with Glucose, Hemin and Vitamin K is a modification of the Cooked Meat Medium originally developed by Robertson (1) for cultivation of anaerobes isolated from wounds. Moore et al (2) have recommended this modified medium for sub-culturing of anaerobic isolates to be examined by gas liquid chromatography.

The medium contains Beef Heart granules, which supplies amino acids and nutrients. It also contains glutathione, a reducing substance which permits the growth of obligate anaerobes. The sulphhydryl groups which impart reducing effect are more available in denatured protein and hence the cooked meat is added in the medium. The added supplements glucose, yeast extract, hemin and vitamin K serve as growth enhancers for anaerobic microorganisms.

The growth in this medium is indicated by the turbidity or bubble formation by some organisms. Blackening and disintegration of the meat particles indicate proteolysis. For best results, medium should be used on the day it is prepared, otherwise it should be boiled or steamed for a few minutes and allowed to cool without agitation and then inoculated.

Methodology

Suspend 13.3 grams of dehydrated powder media in 100 ml distilled water. Mix thoroughly and allow to stand for 15 minutes until all the particles are thoroughly wetted. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Appearance

Brown coloured granules

Colour and Clarity

Medium amber coloured clear to slightly opalescent supernatant over insoluble granules.

Reaction

Reaction of 13.3% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH Range

7.00-7.40





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Cultural Response

DM 2040: Cultural characteristics observed after an incubation at 35-37°C for 40-48 hours.

Organism	Inoculum (CFU)	Growth
<i>Clostridium butyricum</i> ATCC 13732	50-100	luxuriant
<i>Clostridium perfringens</i> ATCC 12924	50-100	luxuriant
<i>Clostridium sporogenes</i> ATCC 11437	50-100	luxuriant
<i>Enterococcus faecalis</i> ATCC29212	50-100	luxuriant

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. Robertson, 1916, J. Pathol. Bacterial., 20:327.
2. Holdeman, Cato and Moore, 1977, Anerobic Laboratory Manual, 4th Ed, Virginia Polytechnical Institute and State Universtiy, Blacksburg, Va.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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