Product Insert

CHOPPED MEAT MEDIUM (CM, CMG, and CMC)

Products

AS-811	Chopped Meat Medium (CM)	10 tubes / pkg
AS-813	Chopped Meat Medium w/ Glucose (CMG)	10 tubes / pkg
AS-823	Chopped Meat Medium w/ Carbohydrates (CMC)	10 tubes / pkg

Intended Use

Chopped Meat Mediums (CM, CMG, and CMC) will support the growth of most non-sporeforming and sporeforming anaerobes associated with human and animal infections. This media may also be used as a maintaining or holding media for stock cultures.

Summary

CM, CMG, and CMC are enriched non-selective medias that are useful as a holding media for stock and mixed cultures, sporulation, proteolysis, and toxin production by certain *Clostridia* spp. such as *Clostridium novyi,* Type A. These medias are used for preservation of clostridial cultures by freezing. CM, CMG, and CMC have the capacity to initiate growth from a minute inoculum and maintain viability of organisms over extended periods. These medias allow slower growing organisms, within a mixed sample, to proliferate in the presence of rapid reproducing organisms and are used to demonstrate clostridial toxin production, sporulation, and short chain organic acid production by gas chromatography. These medias are prepared, dispensed, and packaged under oxygen-free conditions to prevent the formation of oxidized products prior to use.

Formulation*

CM			
Lean Ground Beef		500.00	g
Sodium Hydroxide		25.00	mL
Pancreatic Digest of Casein		30.00	g
Yeast Extract		5.00	g
Potassium Phosphate Dibasic		5.00	g
L-Cysteine Hydrochloride (25.0% solution)		0.50	g
Hemin (0.1% solution)		5.00	mL
Vitamin K_1 (1.0% solution)		0.10	mL
DI Water		1.00	L
CMG	Dextrose	3.00	g
CMC	Dextrose	4.00	g
	Maltose	1.00	g
	Cellobiose	1.00	g
	Starch	1.00	g

Final pH: 7.1 ± 0.3 at 25 °C.
Final volume: 7.0 mL ± 0.7 mL

*Approximate formula. Adjusted and/or supplemented as required to meet performance criteria.

Precautions

For *IN VITRO DIAGNOSTIC USE* only. Utilize approved biohazard precautions and aseptic technique when using this product. This product is for use only by properly trained and qualified personnel. Sterilize all biohazard waste prior to disposal.

Storage and Shelf Life

Storage: Upon receipt, store at room temperature in original packaging until use. Avoid overheating or freezing. Do not use media if there are signs of deterioration (discoloration or evaporation) or contamination. The expiration date applies to the product in its original packaging and stored as directed. Do not use product past the expiration date shown on the container.

Shelf Life: 1 year from date of manufacture.

Procedure

Specimen Collection: Protect specimens for anaerobic culture from oxygen during collection, transportation, and processing. Consult appropriate references for detailed instructions concerning collection and transportation of anaerobes.

Methods for Use: CM, CMG, and CMC should be inoculated directly with clinical specimen. Immediately place inoculated tubes into an anaerobic atmosphere and incubate at 35 – 37°C for 18 – 48 hours. Additional periods of incubation may be necessary to recover some anaerobes. Detailed instructions for processing anaerobic cultures can be found in the appropriate references.

Materials Required, But Not Provided

Standard microbiological supplies and equipment such as loops, pipets, saline blanks, slides, staining supplies, microscope, incinerator / autoclave, incubators, anaerobic chamber / anaerobic jars, disinfectant, other culture media, and serological / biochemical reagents.

Interpretation of Results

If used properly, Chopped Meat Mediums (CM, CMG, and CMC) supports good growth of *Clostridium tetani*, *Clostridium sporogenes, Prevotella melaninogenica,* and *Fusobacterium necrophorum* from a small inoculum (i.e. 0.01 ml of a 24 – 48 hour Lombard-Dowell (LD) Broth culture diluted to 3:1000). Both *C. tetani* and *C. sporogenes* should produce characteristic spores and *C. sporogenes* should exhibit typical proteolysis of the meat. In addition, *C. septicum* and *C. tetani* should exhibit typical toxin production as demonstrated by mouse toxicity and mouse toxin neutralization.

Limitations

CM, CMG, and CMC will not provide complete information for the identification of bacterial isolates. Additional test procedures and media are required for complete identification. Consult reference materials for additional information.

Quality Control

The following organisms are routinely used for quality assurance testing at Anaerobe Systems.

Organism Tested	ATCC #	Results	Time
Bacteroides fragilis	25285	Growth	24 hrs
Prevotella melaninogenica	25845	Growth	24 – 48 hrs
Bacteroides vulgatus	8482	Growth	24 hrs
Fusobacterium nucleatum	25586	Growth	24 – 48 hrs
Fusobacterium necrophorum	25286	Growth	24 – 48 hrs
Clostridium perfringens	13124	Growth	24 hrs
Clostridium novyi	7659	Growth	24 – 48 hrs
Peptostreptococcus anaerobius	27337	Growth	24 hrs
Propionibacterium acnes	6919	Growth	24 – 48 hrs
Staphylococcus aureus	25923	Growth	24 hrs

User Quality Control: The final determination to the extent and quantity of user laboratory quality control must be determined by the end user.

If sterility testing is to be performed on this product, a representative sample of the lot(s) should be incubated anaerobically and aerobically for 48 – 96 hours.

If the nutritive capacity of this media is to be tested for performance, it is recommended that the following ATCC organisms be evaluated for growth.

Organism	ATCC#	Expected Growth
B. fragilis	25285	24 hrs
P. melaninogenica	25845	48 hrs
C. perfringens	13124	24 hrs
F. necrophorum	25286	48 hrs
S. aureus	25923	24 hrs

Physical Appearance: Chopped Meat Mediums should appear as a clear to slightly turbid, golden-yellow liquid with pieces of ground meat.

References

1. Dowell, V. R., Jr. and T. M. Hawkins. 1987. *Laboratory Methods in Anaerobic Bacteriology. CDC Laboratory Manual.* USDHHS CDC. Atlanta, GA 30333.

2. Dowell, V. R., Jr., G. L. Lombard, F. S. Thompson and A. Y. Armfield. 1977. *Media for the Isolation, Characterization and Identification of Obligately Anaerobic Bacteria.* USDHHS, CDC. Atlanta, GA 30333.

3. Engelkirk, P. G., Duben-Engelkirk, J. and Dowell, V. R. 1992. *Principles and Practices of Clinical Anaerobic Bacteriology*. Star Publishing Co., Belmont, CA 94002.

4. Holdeman, L. V., F. P. Cato and W. E. C. Moore. 1987. *Anaerobe Laboratory Manual*. Virginia Polytechnic Institute and State University. Blacksburg, VA 24061

5. Jousimeis-Somer, H. R., Summanen, P., Citron, D. M., Baron, E. J., Wexler, H. M. and S. M. Finegold. 2002. *Wadsworth – KYL Anaerobic Bacteriology Manual*. Star Publishing Co., Belmont, CA 94002.

6. CLSI. *Quality Control for Commercially Prepared Microbiological Culture Media; Approved Standard- Third Edition.* (2004). CLSI document M22-A3. CLSI, 940 West Valley Road, Suite 1400, Wayne, PA 19087-1898.

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