Product Insert

CAMPYLOBACTER-THIOGLYCOLLATE MEDIUM (CAMPY-THIO)

Products

AS-807 Campylobacter-Thioglycollate Medium (CAMPY-THIO) 10 tubes / pkg

Intended Use

Campylobacter-Thioglycollate Medium (CAMPY-THIO) is used as a selective growth enrichment broth for *Campylobacter* species from contaminated sources.

Summary

CAMPY-THIO media is used for the recovery and isolation of *Campylobacter* species. CAMPY-THIO is a basal media supplemented with antibiotics from the Blaser formulation. Minor changes have been made to the original formulation. Cephalothin has been removed, and the concentration of Polymyxin B has been increased to prevent overgrowth of other bacteria. A low concentration of agar has been added to slow the diffusion of oxygen within the media. This media is prepared, dispensed, stored, and packaged under oxygen-free conditions to prevent the formation of oxidized products prior to use.

Formulation

Pancreatic Digest of Casein	15.00	g
Yeast Extract	5.00	g
Meat Peptone	3.00	g
Sodium Chloride	2.00	g
Dextrose	6.00	g
Sodium Thioglycollate	1.00	g
Agar	0.50	g
Sodium Sulfite	0.10	g
L-Cystine	0.25	g
Sodium Hydroxide (4.0% solution)	2.50	mL
Hemin (0.1% solution)	5.00	mL
Vitamin K_1 (1.0% solution)	0.10	mL
Vancomycin (3.6% solution)	0.50	mL
Trimethoprim (2.0% solution)	0.50	mL
Polymyxin B (0.3% solution)	2.00	mL
Amphotericin B (0.3% solution)	1.00	mL
Marble Chip	1.00	piece
DI Water	1.00	L

Final pH 7.6 ± 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 transport of anaerobes.

Methods for Use: CAMPY-THIO media should be inoculated directly from a clinical specimen (i.e. stool sample). The tube is then incubated at 4°C for 8 – 12 hours. After refrigerated incubation, a sample from the tube is streaked onto appropriate Campylobacter media (Catalog # AS-211) and Brucella Blood Agar media (Catalog # AS-111) for further isolation of organisms. Incubate inoculated plates at 42 – 43° C in an anaerobic jar (catalyst removed) with a microaerophilic gas mixture. For strain specific gas mixtures, consult appropriate references.

NOTE: If facilities for gassing out an anaerobic jar are not available, a disposable Hydrogen-Carbon Dioxide generator may be substituted. Not all strains of *Campylobacter jejuni* subsp. *jejuni* grow as well when generators are used, and some may not grow at all. *Campylobacter jejuni* subsp. *jejuni* is a microaerophile, not a strict anaerobe.

Plates should be examined after 24, 48, and 72 hours of incubation. Colonies of *Campylobacter jejuni* subsp. *jejuni* are usually detected in 24 hours. The colonies vary from pinpoint, glossy-appearing to those which spread over the entire surface of the agar. Since *Campylobacter jejuni* subsp. *jejuni* is an oxidase positive organism, the oxidase test can be used to screen suspect colonies.

The cold enrichment step with CAMPY-THIO has been shown to increase the recovery of *Campylobacter jejuni* subsp. *jejuni* from stool samples (1, 3). Overgrowth of other organisms should be inhibited. 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, saline blanks, slides, staining supplies, microscope, incinerator/autoclave, incubators, anaerobic chamber / anaerobic jars, other culture media, and serological / biochemical reagents.

Interpretation of Results

If used properly, this media aides in the isolation of *Campylobacter* species from clinical specimens contaminated by normal flora. *Campylobacter jejuni* subsp. *jejuni,* and *Campylobacter fetus* subsp. *fetus* should be recovered upon subculturing onto appropriate media.

Limitations

CAMPY-THIO media will not provide complete information for identification of bacterial isolates. Additional test procedures and media are required for complete identification. Some organisms normally recovered from this media may be inhibited. 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
Campylobacter jejuni subsp. jejuni	33291	Growth	24 – 48 hrs
Campylobacter fetus subsp. fetus	33246	Growth	24 – 48 hrs
Staphylococcus aureus	25923	No Growth	
Enterococcus faecalis	29212	No Growth	
Escherichia coli	25922	No Growth	
Proteus mirabilis	12453	Inhibited to No Growth	

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

Organism	ATCC #	Growth
C. jejuni subsp. jejuni	33291	48 hrs
C. fetus subsp. fetus	33246	48 hrs
S. aureus	25923	No Growth
E. coli	25922	No Growth

Physical Appearance: CAMPY-THIO is a clear, golden-yellow liquid with a submerged marble chip in a 16 mm x 100 mm hungate capped glass tube.

References

1. Kaplan, R. L. and J. E. Barret. 1981. Monograph: *Campylobacter*. Marion Scientific.

2. Lennette, E. H., et al. 1980. *Manual of Clinical Microbiology* (3rd edition), American Society for Microbiology. Washington D. C.

3. Rubin, S. J. and M. Woodward. 1983. Enhanced isolation of *Campylobacter jejuni* by cold enrichment in Campy-Thio broth. *J. Clin. Microbiol*. 18: 1008-1010.

4. Wang, W. L. et. Al. 1983. Evaluation of transport media for *Campylobacter jejuni* in human fecal specimens. *J. Clin. Microbiol*. 18: 803-807.

5. 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.

Revision Date: 09/17/17