

Product Insert

ANAEROBIC TRANSPORT MEDIUM / DENTAL TRANSPORT MEDIUM (ATM, ATMSP, DTM)

Products

AS-911	Anaerobic Transport Medium (ATM)	10 tubes / pkg
AS-914	Anaerobic Transport Medium Surgery Pack (ATMSP)	10 tubes / pkg
AS-920	Anaerobic Dental Transport Medium (DTM)	10 tubes / pkg

Intended Use

Anaerobic Transport Medium (ATM and ATMSP) and Anaerobic Dental Transport Medium (DTM) are mineral salt based semi-solid medias with reducing agents. Designed as a holding medium to maintain the viability of microorganisms, both anaerobic and aerobic, through collection, transportation, and shipment of clinical specimens.

Summary

ATM, ATMSP, and DTM contain buffered mineral salts in a semi-solid media, with sodium thioglycollate and cysteine added to provide a reduced environment. This combination has been prepared to provide an environment which maintains the viability of most microorganisms without significant multiplication and allows for dilution of inhibitors present in clinical material. This medium is designed to meet the stringent viability requirements of obligate anaerobes. All tubes are supplied with hungate caps (screw caps containing a rubber septa), which allows for either direct injection of aspirated clinical specimens or introduction of tissue samples. Resazurin is added as an indicator of significant oxygen exposure to the media. This media is prepared, dispensed, and packaged under oxygen-free conditions.

Formulation*

Sodium Thioglycollate	1.00	g
Sodium Phosphate Dibasic	1.15	g
Sodium Chloride	3.00	g
Potassium Chloride	0.20	g
Potassium Phosphate Monobasic	0.20	g
Magnesium Sulfate Heptahydrate	0.10	g
Gellan Gum	4.00	g
L-Cysteine Hydrochloride (25.0% solution)	4.00	mL
Resazurin (0.025% solution)	4.00	mL
DI Water	1.00	L

Final pH: 7.5 ± 0.5 at 25°C

Final volume: 6.0 mL ± 0.60 mL for AS-911 & AS-914

Final volume: 5.0 mL ± 0.75 mL for AS-920

*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 package until used. Avoid overheating or freezing. Do not use medium if there are signs of deterioration (shrinking, cracking or discoloration due to oxidation of media) 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 label.

Shelf Life: AS-911 (ATM)	1 year from date of manufacture
AS-914 (ATMSP)	5 months from date of manufacture
AS-920 (DTM)	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: ATM, ATMSP, and DTM are suitable for use as a transport and holding medium for clinical specimens collected as tissue samples or fluid specimens aspirated into syringes. With any clinical specimen, this media should be inoculated using aseptic technique during collection. For tissue samples, open the screw cap and place tissue on the surface of the semisolid medium; inserting the tissue into the gel is not necessary. Immediately close tube. Oxygen contact within medium should be minimized. For syringe specimens, the rubber septum in the cap should be disinfected with ethyl alcohol and the fluid specimen injected directly into the tube at a slow rate. Once tubes are inoculated, keep at room temperature, and deliver to the laboratory for processing as soon as possible. Swabs are not recommended for use as anaerobic specimen collection devices; however, this medium can accommodate swabs if necessary. Detailed instructions for processing anaerobic cultures can be found in the appropriate references.

ATM Surgery Pack (AS-914): The contents and outer surface of the tube are sterile. To open, peel the envelope apart. While wearing sterile gloves, remove the tube from the packaging and take the tube into the sterile surgical area.

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, disinfectant, other culture media, and serological / biochemical reagents.

Interpretation of Results

Results for the recovery of bacteria will largely depend on proper and adequate specimen collection, timely transport, and processing in the laboratory. If used properly, this medium should maintain the viability of microorganisms, anaerobic and aerobic, present within a clinical specimen until transported and processed within the laboratory.

Limitations

ATM, ATMSP, and DTM are designed as holding mediums to maintain viability of microorganisms contained within a specimen during transport. This medium will not provide complete information for identification of bacterial isolates. Additional test procedures and media are required for complete identification. Specimens should be transported and processed in the laboratory in a timely manner as delays may result in overgrowth by one organism present in a specimen from polymicrobial infections. Consult reference materials for additional information.

Quality Control

The following organisms are routinely used for quality assurance testing at Anaerobe Systems. To determine the holding capacity of ATM, ATMSP, and DTM, an ATCC isolate strain (listed below), from 24-hour growth, is inoculated into the media aerobically and held for 48 hours at room temperature. Each organism is streaked onto Anaerobic Brucella Blood Agar (BRU, catalog #: AS-111) in an anaerobic environment to obtain isolated colonies. Plates are incubated at 35–37°C for 48 hours and growth is observed.

Organism Tested	ATCC #	Results	Time
Bacteroides fragilis*	25285	Growth	24 hrs
Prevotella melaninogenica*	25845	Growth	24 – 48 hrs
Propionibacterium acnes*	6919	Growth	24 – 48 hrs
Fusobacterium nucleatum*	25586	Growth	24 hrs
Peptostreptococcus anaerobius*	27337	Growth	24 hrs

* Organisms specified by CLSI for Quality Control testing of Anaerobic Microbiological Transport Systems.

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

For AS-911 (ATM) & AS-914 (ATMSP):

Organism	ATCC#	Time
B. fragilis	25285	24 hrs
P. melaninogenica	25845	48 hrs
P. acnes	6919	48 hrs
F. nucleatum	25586	24 hrs
P. anaerobius	27337	24 hrs

For AS-920 (DTM):

Organism	ATCC#	Time
B. fragilis	25285	24 hrs
P. melaninogenica	25845	48 hrs
F. nucleatum	25586	24 hrs

Physical appearance: ATM, ATMSP, and DTM should appear as clear to slightly turbid, colorless, semi solid media in a 16 mm x 100 mm glass tube (for AS-911 & AS-914) or a 19 mm x 40 mm glass tube (for AS-920) with a Hungate cap.

References

1. 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.
2. Engelkirk, P. G., Duben-Engelkirk, J. and Dowell, V. R. 1992. *Principles and Practices of Clinical Anaerobic Bacteriology*. Star Publishing Co., Belmont, CA 94002.
3. Holdeman, L. V., F. P. Cato and W. E. C. Moore. 1987. *Anaerobe Laboratory Manual*. Virginia Polytechnic Institute and State University. Blacksburg, VA 24061
4. 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.
5. CLSI. *Quality Control for Commercially Prepared Microbiological Transport Systems; Approved Standard*. CLSI document M40-A2. CLSI, 940 West Valley Road, Suite 1400, Wayne, PA 19087-1898 USA, 2014.

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