

Product Insert

MITIS SALIVARIUS AGAR WITH TELLURITE (MSAT)

Products

AS-6423 Mitis Salivarius Agar with Tellurite (MSAT)

4 plates / pkg

Intended Use

Mitis Salivarius Agar with Tellurite (MSAT) is an enriched selective medium for the isolation of *Streptococcus mitis*, *Streptococcus salivarius*, and other oral *Streptococci* and *Enterococci* found in clinical specimens.

Summary

MSAT agar is an enriched selective medium used for isolating *Streptococcus mitis*, *Streptococcus salivarius*, and *Enterococci*. Peptones are added as source of carbon, nitrogen, vitamins, and minerals. Dextrose and saccharose are included as carbohydrate sources. The selective agents include crystal violet and potassium tellurite, which inhibit most gram-negative bacilli and most gram-positive bacteria except the Streptococci. Trypan blue gives the colonies a blue coloration. This media is prepared, dispensed, and packaged under oxygen-free conditions to prevent the formation of oxidized products prior to use.

Formulation*

Pancreatic Digest of Casein	6.00	g
Proteose Peptone No. 3	9.00	g
Proteose Peptone	5.00	g
Dextrose	1.00	g
Saccharose	50.00	g
Dipotassium Phosphate	4.00	g
Trypan Blue	0.075	g
Crystal Violet	0.0008	g
Potassium Tellurite (1.0% solution)	1.50	mL
Agar	15.00	g
DI Water	1.00	L

Final pH: 7.3 ± 0.3 at 25° C

Final weight: 16.0 g ± 1.6 g

*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 media 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: 90 days 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: MSAT agar should be inoculated directly with clinical specimen or from a broth that has been inoculated with a clinical specimen. Streak plates with inoculum to obtain isolated colonies and immediately place into an anaerobic atmosphere, incubating at 35-37°C for 3 – 5 days. Detailed instructions for processing anaerobic cultures can be found in the listed 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, disinfectant, other culture media, and serological / biochemical reagents.

Interpretation of Results

If used properly, MSAT agar will support the growth of *Streptococcus mitis*, *Streptococcus salivarius*, and *Enterococci* from clinical specimens.

Limitations

MSAT will not provide complete information for identification of bacterial isolates. Additional test procedures and media are required for complete identification. It is recommended that a non-selective media, such as Brucella Blood Agar (BRU, catalog #: AS-111) also be inoculated from the same clinical specimen to assure recovery of all species present. Consult reference materials for additional information.

Quality Control

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

Organism Tested	ATCC #	Results	Time	Special Reaction
<i>Bacteroides fragilis</i>	25285	Inhibited to No Growth		
<i>Prevotella melaninogenica</i>	25845	Inhibited to No Growth		
<i>Fusobacterium necrophorum</i>	25286	Inhibited to No Growth		
<i>Fusobacterium nucleatum</i>	25586	Inhibited to No Growth		
<i>Clostridium perfringens</i>	13124	Variable		
<i>Enterococcus faecalis</i>	29212	Growth	24 – 48 hrs	Blue/Black colonies
<i>Staphylococcus aureus</i>	25923	Inhibited to No Growth		
<i>Streptococcus mitis</i>	9811	Growth	24 hrs	Blue colonies
<i>Streptococcus pyogenes</i>	19615	Growth	24 hrs	Blue colonies
<i>Streptococcus salivarius</i>	13419	Growth	24 hrs	Blue “gum drop” colonies
<i>Streptococcus mutans</i>	25175	Growth	24 – 48 hrs	Blue colonies
<i>Peptostreptococcus anaerobius</i>	27337	Variable		

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 #	Expected Growth	Special Reaction
F. nucleatum	25586	Inhibited to No Growth	
S. aureus	25923	Inhibited to No Growth	
S. mitis	9811	24 hrs	Blue colonies
S. pyogenes	19615	24 hrs	Blue colonies
S. salivarius	13419	24 hrs	Blue "gum drop" colonies

Physical Appearance: MSAT should appear translucent royal blue in color.

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 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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