AG – MANITOL SALT AGAR AGAR - INSTRUCTIONS FOR USE

(Ready Plated Media)

- **INTENDED USE:**

In vitro diagnostic. It is a Selective medium for the isolation and differentiation of staphylococci from clinical and non-clinical specimens.

- **PRINCIPLE:**

Staphylococcus aureus on MSA

• Selective: High salt concentration (7.5% sodium chloride) inhibits most bacteria, allowing staphylococci to thrive.
• Differential: Distinguishes mannitol-fermenting Staphylococcus aureus (yellow zone) from non-fermenting staphylococci (red/pink zone).
• Versatile Applications: Used for isolating staphylococci from clinical specimens and detecting S. aureus in pharmaceuticals and cosmetics.
• Meets Standards: Complies with EP, USP, and JP requirements for S. aureus detection.
• Nutrient-Rich: Peptones provide essential growth factors; phenol red serves as a clear pH indicator for fermentation activity.

- **MATERIALS PROVIDED:**

PRODUCT	TYPE	REF	PACK
AG – MSA Agar - 90mm	Ready Plated Media	AG/MSA/22/01	10 plates in a pack

- **MATERIALS REQUIRED BUT NOT PROVIDED:**

Sterile loops, incubator, and laboratory equipment as required.

- **SPECIMENS:**

- contaminated clinical specimens (e.g., feces, respiratory samples, wounds)
- non-clinical specimens (e.g., non-sterile pharmaceuticals, cosmetics).
- Collect before antimicrobial therapy, if feasible.
- Apply proper collection, transport, and storage methods for clinical samples.
- Follow standard protocols for non-sterile product sample preparation.

- **TEST PROCEDURE, READING AND INTERPRETATION:**

- Allow plates to reach room temperature.
- Ensure the MSA agar surface is smooth and moist but not excessively wet.
- For loop inoculation: Streak the specimen across four quadrants of the plate to achieve isolated colonies, avoiding overlap between sections 1 and 4.
- For swab inoculation: Roll the swab over a small edge area of the plate, then streak from this inoculated area using a loop.
- Incubate plates aerobically at 35–37°C.
- Record results after 18–24 hours. If no typical colonies are observed, re-incubate for an additional 24–36 hours (up to 72 hours total).

Detection of *S.aureus* in the pharmaceutical products :

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- Inoculate 10 mL or equivalent to 1 g/mL of sample into Tryptic Soy Broth (TSB).
- Incubate at 30–35°C for 18–24 h.
- Subculture onto Mannitol Salt Agar (MSA) by streaking.
- Incubate at 30–35°C for 18–72 h.
- Observe and document colony morphology and color.

• USER QUALITY CONTROL:

All manufactured lots of the product are released for sale after Quality Control has been performed to check the compliance with the specifications. However, the end user can perform its own Quality Control in accordance with the local applicable regulations, in compliance with accreditation requirements and the experience of the Laboratory. Here below are listed some test strains useful for quality control.

CONTROL STRAINS	INCUBATION	EXPECTED RESULTS
Staphylococcus aureus ATCC 25923	35 ± 2˚C, 48 hrs	Growth with yellow colonies
Enterococcus faecalis	35 ± 2˚C, 48 hrs	Growth Inhibited

Key: ATCC is a trademark of American Type Culture Collection

• LIMITATIONS OF THE METHOD:

- Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.
- Biochemical tests and serological procedures must be performed to confirm presence of *L. pneumophila*.

• PRECAUTIONS AND WARNINGS:

- This product is for microbiological control and for professional use only; it is to be used by adequately trained and qualified laboratory personnel, observing approved biohazard precautions and aseptic techniques.
- All laboratory specimens should be considered infectious.
- The laboratory area must be controlled to avoid contaminants such as culture medium or microbial agents.
- Sterilize all biohazard waste before disposal. Dispose of the unused medium and the sterilized plates inoculated with samples or microbial strains in accordance with current local legislation.
- The Certificates of Analysis and the Safety Data Sheet of the product are available with AstraGene and can be provided on request.

• STORAGE CONDITIONS AND SHELF LIFE:

- Upon receipt, store at +2 - 8°C away from direct light in a cool, dry place. The user is responsible for the storage method (temperature) of the medium.
- If properly stored, the product may be used up to the expiration date. Do not use it beyond the mentioned expired date.

• SYMBOLS:

Date of manufacture	Use-by-date	Do not use if package is damaged	Manufacturer
Batch Code	Refer to the instructions	ISO	GMP
In-Vitro diagnostic Medical devices	Mark of conformity		

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