Biomed Global

Rev: 0

CHROMagar™ MRSA Agar | Ready-to-use Media

Effective Date: 15/11/2024

a product by Biomed MDX

REF FP90M4004

IVD

Intended Use:

CHROMagar™ MRSA is a specialized growth medium designed to directly detect the presence of methicillin-resistant *Staphylococcus aureus* (MRSA). This medium helps prevent and control MRSA spread in healthcare settings by identifying individuals who are colonized with this bacterium. The test involves analyzing swabs from the nose or perineal area of patients and healthcare workers.

Principle of the Procedure:

MRSA agar's principal centers on the selective isolation and presumptive identification of Methicillin-Resistant *Staphylococcus aureus* (MRSA). This selectivity allows only MRSA strains, which possess resistance genes like *mecA*, to thrive. Some formulations further enhance selectivity with a high salt concentration. Beyond selection, MRSA agar also employs differential indicators, often chromogenic substrates. These substrates react with enzymes produced by *S. aureus*, resulting in distinct color changes in MRSA colonies, facilitating presumptive identification.

Product Summary:

Staphylococcus aureus is a significant human pathogen, frequently encountered in various clinical settings. The emergence of methicillin-resistant *Staphylococcus aureus* (MRSA) has significantly complicated treatment due to its resistance to beta-lactam antibiotics. This has led to an increase in healthcare-associated infections[1]. Accurate and rapid screening for MRSA is crucial for effective treatment and infection control. Selective media play a vital role by facilitating the isolation of *S. aureus* and the simultaneous detection of methicillin resistance.

Formulation* (PER LITER):

Peptone and yeast extract	40.0g	**Chromogenic mix**	2.5g
Salts	25.0g	**Agar**	15.0g

pH 6.9 +/- 0.2

*Adjust and/or supplemental as required to meet performance criteria

Procedure

Materials Provided

90mm MRSA Agar.

Materials Required But Not Provided

Ancillary culture media, reagents, and laboratory equipment as required.

Test Procedure

1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory with an aseptic technique.
2. Incubate at 35 ± 2°C for 24 hours.
3. Observe the result according to user requirements.
4. Dispose of all used reagents and contaminated materials as infectious waste. Laboratories must handle and dispose of all waste safely according to regulations.

Results

Examine for colonies exhibiting typical microscopic and colonial morphology. Appropriate biochemical or immunological tests may be required for final identification

Quality Control

Inoculate representative samples with the following strains. Incubate the inoculated plates at 35 ± 2°C for 24 hrs. to allow colonies to develop on the medium.

Strains	ATCC®	Growth Results
MR Staphylococcus aureus	33592	Growth; mauve
MS Staphylococcus aureus	25923	No growth
Eneterococcus faecalis	29212	No growth
Escherichia coli	25922	No growth
Candida albicans	10231	No growth
Uninoculated plate	-	No growth

Transportation:

Temperature fluctuations may occur during transportation. However, these fluctuations do not affect the performance, quality, or safety of the media.

Storage and Shelf Life:

Upon receipt, store plates at 2 to 8°C, in dark and light sensitive areas, in their original sleeve wrapping until just before use. Avoid freezing and overheating.

The plates may be inoculated up to the expiration date (see package label) and incubated for the recommended incubation times.

Warning and Precautions:

For in vitro diagnostic use. For Professional Use Only. Do Not Reuse.

Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration.

Limitations of the Procedure

This medium is for laboratory use only and is not intended for the diagnosis of disease or other conditions. Identifications are presumptive and colonies should be identified using appropriate methods

Reference

1. Voss, A., & Doebbeling, B. N. (1995). The worldwide prevalence of methicillin-resistant Staphylococcus aureus. *International journal of antimicrobial agents*, *5*(2), 101-106.

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Packaging Symbol

Symbol	Definition
REF	Catalogue number
IVD	In Vitro Diagnostic Medical Device
LOT	Batch code
	Date of manufacture
	Temperature limit
	Use-by date
	Keep away from sunlight
	Do not re-use
	Fragile, handle with care
	Consult instructions for use or consult electronic instructions for use
	Do not use if packaging damaged and consult instructions for use
	Manufacturer

Further Information:

For further information please contact your Biomed MDX representative.

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