MRSA Chromogenic Modified Agar Base

Cat. 1498

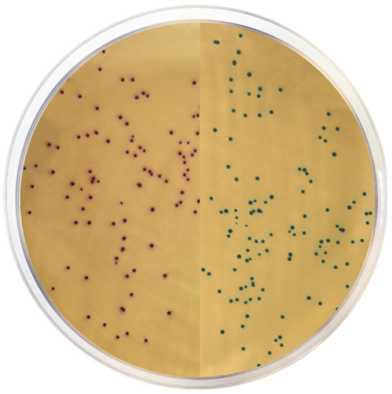
For the detection and differentiation of methicillin resistant Staphylococcus aureus and Staphylococcus epidermidis.

Practical information

Aplications	Categories
Detection	Staphylococcus
Differentiation	Staphylococcus

Industry: Clinical

CE
IVD



Principles and uses

MRSA Chromogenic Modified Agar Base is a chromogenic medium for the detection and differentiation of methicillin resistant Staphylococcus aureus and Staphylococcus epidermidis.

Methicillin resistant Staphylococcus aureus, MRSA, are of particular interest at an international level due to its virulence and resistance to multiple antibiotics. The antimicrobial resistance is a serious threat to public health as it is now regarded as a major hospital acquired disease worldwide. The important changes observed in the epidemiological and microbiological characteristics of the infections caused by Staphylococcus aureus are the reason for the increment and prevalence of methicilin-resistant Staphylococcus aureus nosocomial (associated to hospitalized patients) and the proliferation of methicilin-resistant Staphylococcus aureus acquired by the community. The MRSA continues being a serious problem in many healthcare centres; more than 50% of the Staphylococcus aureus obtained are from Intensive Care Units (ICU) and close to 40% are from hospital patients. Effective, rapid laboratory diagnosis and susceptibility testing is critical in treating, managing and preventing MRSA infections.

Methicillin resistant Staphylococcus aureus grow as magenta colonies. Methicillin resistant Staphylococcus epidermidis grow as green-blue colonies. The rest of the accompanying flora is inhibited. The cefoxitin inhibits the growth of Staphylococcus aureus sensitive to methicillin.

Formula in g/L

Bacteriological agar	12,5	Chromogenic mixture	0,24
Peptone mixture	41	Growth factors	56

Preparation

Suspend 110 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. AVOID OVERHEATING. DO NOT AUTOCLAVE. Cool to 45-50 ºC and aseptically add two vials of Cefoxitin MRSA Supplement (Cat. 6069). Homogenize gently and dispense into Petri dishes.

Instructions for use

For clinical diagnosis, use any type of clinical samples.
- Inoculate on the surface. Parallel striae with the handle or swab.
- Incubate plates aerobically at 35±2 ºC for 24-48 hours.
- Reading and interpretation of the results.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Grey straw	Amber, slightly opalescent	7,0±0,2

Microbiological test

Incubation conditions: (35±2 ºC / 24-48 h).

Microorganisms	Specification	Characteristic reaction
Escherichia coli ATCC 25922	Inhibited growth	
Staphylococcus aureus ATCC 25923	Inhibited growth	
Staphylococcus epidermidis ATCC 35984	Good growth	Colony color Blue-green
Staphylococcus aureus ATCC 43300	Good growth	Colony color Magenta

Storage

Temp. Min.:2 ºC
Temp. Max.:8 ºC

Bibliography

Hutchison, M.J., Edwards, G.F.S., Morrison, D. Evaluation of chromogenic MRSA Reference Laboratory presented at the 2005 Institute of BioMedical.