HiCrome™ C.auris MDR Selective Agar Base M2114

Intended use

Recommended for selective isolation of *Candida auris* MDR strains from clinical samples and mixture of other *Candida* species.

Composition**

Ingredients	g / L
Peptone	20.000
Chromogenic mixture	13.600
Inhibitory mixture	0.050
Agar	13.600
Final pH (at 25°C)	6.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 47.35 gram in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. **DO NOT AUTOCLAVE.** Cool to 45-50°C. Aseptically add rehydrated contents of two vials of AntiF MDR Selective Supplement (FD360). Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Candida auris has emerged as a resitant fungus which causes a serious global health threat. It is often resistant to multiple antifungal drugs commonly used to treat *Candida* infections. Some strains are resistant to all three available classes of antifungals (polyene, azoles and echinocardins). However it varies in the level of susceptibility. It was first isolated from the ear canal of a patient in Japan. *Candida auris* can grow at 42°C, but failed to grow in the presence of 0.01% or 0.1% cycloheximide (1).

HiCrome™ C.auris MDR Selective Agar Base is recommended for the detection of multidrug resistant strains. Peptone provides nitrogeneous and carbonaceous compounds, long chain amino acids, vitamins and other essential nutrients. Chromogeniuc mixture in the medium helps in imparting puple colour to *Candida auris*. Inhibitory mixture imparts selectivity to the medium wherein bacterial cultures are inhibited. The selective supplement and incubation temperature helps in selection of MDR *C.auris* strains.

C.auris can survive for weeks on plastic surfaces, has reduced susceptibility to quaternary ammonia disinfectants, and can colonize skin of healthy individuals. Therefore, strict BSL2 laboratory safety precautions must be followed, when working with this organism. Specifically, it is recommended that cultures are processed within BSL2 biosafety cabinet, gloves and lab coats are required.

Type of specimen

Clinical samples - skin samples (specifically axilla and groin) , swabs taken from the nares, oropharynx, external ear canal and rectum, vaginal secretions.

Specimen Collection and Handling

1. Before beginning, perform hand hygiene and wear appropriate personal protective equipment (PPE) as indicated by the patient's clinical care team (e.g., gloves, gown, mask).
2. Open the swab package and firmly rub the soft end of the collection swab cross the indicated site at least 3-5 times.
3. Transfer the swab and then process immediately or it can be kept at 2-8°C before transporting to the laboratory.
4. Strict BSL2 laboratory safety precautions must be followed.

After use, contaminated materials must be sterilized by autoclaving before discarding (2).

Warning and Precautions

In Vitro diagnostic Use only. For professional use only. Read the label before opening the container. Wear protective gloves/ protective clothing/eye protection/ face protection.

Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Slight variation in colour for isolates may be observed as the reaction is based on the enzyme present in organism.
2. Growth of the organisms may vary depending on their susceptibility and resistance to antibiotic.
3. Further biochemical and serological tests must be performed for final confirmation.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to beige homogeneous free flowing powder

Gelling

Firm, comparable with 1.36% Agar gel

Colour and Clarity of prepared medium

Light amber coloured, opaque gel forms in Petri plates

Reaction

Reaction of 4.75% w/v aqueous solution at 25°C. pH : 6.0±0.2

pH

5.80-6.20

Cultural Response

Cultural characteristics observed with added AntiF MDR Selective Supplement (FD360) after an incubation at 40-42°C for 40-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of Colony
Candida auris (MDR)	50-100	good-luxuriant	>=50%	purple
Candida albicans ATCC 10231 (00054*)	>=10^4	inhibited	0%	-
Candida glabrata ATCC 15126	>=10^4	inhibited	0%	-
Candida tropicalis ATCC 750	>=10^4	inhibited	0%	-
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited	0%	
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	>=10^4	inhibited	0%	

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 15-25°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

1.Ramamurthy S.M., Chakraborty A., Candida auris candidaemia in Indian ICUs : analysis of risk factors. Journal of Antimicrobial Chemotherapy 2017, 72: 1794-1801

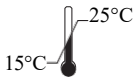
2.Procedure for Collection of Patient Swabs for Candida auris. Centres for Disease control and Prevention (CDC).

3.Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4.Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W.(2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

Revision : 03/2024

HiMedia Laboratories Pvt. Limited,
Plot No.C-40, Road No.21Y,
MIDC, Wagle Industrial Area,
Thane (W) -400604, MS, India

IVD ***In vitro* diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

CE Marking

Do not use if package is damaged

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory,diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.