Technical Data

HiFungal™ Transport Medium w/swabs

MS5478

Intended Use:

Recommended for the transport and recovery of fungal cultures from clinical samples.

Contents:

Each pack contains
Sterile HiFungal Transport medium w/swab
Sterile nylon flocked swab with breakpoint for specimen collection

Composition**

Ingredients

Proprietary

**Formula adjusted, standardized to suit performance parameters

Directions

Each pack has sterile swab and medium for specimen collection and transport.
1.Cut open the pouch containing the swab for specimen collection.
2.Collect the specimen using standard techniques.
3.After sample collection, insert the swab into the HiFungal Transport medium and break the swab at the breakpoint.
4.Tighten the cap firmly. The specimen will be preserved during transportation and also the viability of the organisms willbe maintained.
5.After the transportation, inoculate the swab onto the cultivation medium in proper medium as soon as possible.
6. For selective cultivation of Mucormycosis fungi, the swab should be plated onto Mucormycosis Selective Agar Plate (MP5476) and for selective isolation of *Candida* species, the swab must be swabbed onto Candida Selective Agar Plate (MP5477) respectively.
6.For cultivation of fungi it may be cultivated onto any general fungal medium as Sabouraud Dextrose Agar (GM063) Potato Dextrose Agar (M096) etc.

Principle And Interpretation

Mucormycosis (previously called zygomycosis) is a serious but rare fungal infection caused by a group of molds called mucormycetes (1). In most cases it is due to an invasion of the genera Rhizopus and Mucor, common bread molds (2). Effective recovery of microorganisms and its identification is dependent on a number of factors such as collection and transportation to the laboratory under conditions which allow maintenance of viability. This medium gives improved recovery of fungal cultures including yeasts and moulds. The recovery of mycelial fungi including *Aspergillus, Mucor, Rhizopus* is also well supported. The fungal cultures can be safely transported. Antibacterial components have benn added to the transport medium to avoid bacterial contamination.

Type of specimen

Clinical samples : eye lesion, nasal swabs, other sites of infection

Specimen Collection and Handling:

HiFungal Tranport medium w/swab (MS5478) which contains the transport medium along with the swab is used for specimen collection from the ear, nose, nasopharynx, and mouth and transported to the lab. can be used. (Refer directions)
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

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 specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. The medium should be kept cool but do not freeze. If frozen, recovery of fungi may be low.

2. Further recovery should be carried out as directed.
3. For further confirmation of growth, microscopy and biochemical tests are necessary.

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
Sterile HiFungal™ Transport Medium with sterile flocked nylon swab.
Colour
Colourless to pale yellow coloured medium
Quantity of Medium
5 ml of medium in tubes
Sterility test
Passes release criteria
Cultural response
Viability of following organisms was established for a period of 48 hours.For selective cultivation of Mucoromyces fungi, the swab should be swabbed onto Mucoromyces Selective Agar Plate (MP5476) and for selective isolation of white fungi, *Candida* species, the swab must be swabbed onto Candida Selective Agar Plate (MP5477). For cultivation of fungi it may be cultivated onto any general fungal medium as Sabouraud Dextrose Agar, Potato Dextrose Agar etc. The plates are then incubated at 25-30°C for 24-48 hours. Overincubation should be avoided.

Cultural Response

Organism	Growth on Mucoromyces Selective Agar Plate (MP5476)	Growth on Candida Selective Agar Plate (MP5477)
Mucor racemosus isolate	Luxuriant (Black spores observed)	none-poor
Rhizopus oryzae MTCC 1987	Luxuriant (Black spores observed)	none-poor
#Aspergillus brasiliensis ATCC 16404 (00053*)	none-poor	none-poor
Candida albicans ATCC 10231 (00054*)	none-poor	Luxuriant
Trichophyton rubrum ATCC 28191	none-poor	none-poor
Escherichia coli ATCC 25922 (00013*)	inhibited	inhibited
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	inhibited	inhibited
Pseudomonas aeruginosa ATCC 27853 (00087*)	inhibited	inhibited

Key : (#) - Formerly known as *Aspergillus niger,* (*) - corresponding WDCM numbers

Storage and Shelf Life

Store between 20-30°C. Use before expiry date on the label. 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. "Mucormycosis". NORD (National Organization for Rare Disorders). Archived from the original on May 26, 2021. Retrieved May 25, 2021

2. Lee, Soo Chan; Idmurm, Alexander (2018). "8. Fungal sex: The Mucoromycota". In Heitman, Joseph; Howlett, Barbara J.; Crous, Pedro W.; Stukenbrock, Eva H.; James, Timothy Yong; Gow, Neil A. R. (eds.). The Fungal Kingdom. Wiley. pp. 177–192. ISBN 978-1-55581-958-3.

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.

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