TM 962 – CHLAMYDOSPORE AGAR

INTENDED USE

For differentiation of *Candida albicans* from other Candida on the basis of chlamydospore formation.

PRODUCT SUMMARY AND EXPLANATION

Candida albicans is a diploid sexual fungus (a form of yeast), and the causitive agent of opportunistic oral and vaginal infections in humans. *C. albicans* is a commensal of skin, gastrointestinal and genitourinary tract. However, under certain conditions overgrowth of this results into oesopharyngeal candidiasis, vulvovaginal candidiasis and candidemia. Chlamydospores formation is the most differential characteristic of *C. albicans*. Chlamydospore Agar was specially designed for the differentiation of *C.albicans* from other species on the basis of chlamydospores formation. It is prepared according to the formula of Nickerson and Mankowsh.

Test for chlamydospores: Scratch cut mark like X onto the agar surface with inoculum using sterile needle. Aseptically place an alcohol-flamed and cooled cover slip onto the agar surface over the intersecting lines of the cut marks of X. Incubate plates at 20-25°C for 2-6 days. Temperature should not be higher than 25°C since it will not permit chlamydospore formation. Observe the plates under low power of microscope. After incubation, most strains of *C.albicans* and *C.stellatoide* will form typical chlamydospores. Chlamydospores will be seen along the edge of the cover slip. Chlamydospores are round, thick walled, blue coloured and at the terminal ends of hyphae. Some *C.albicans* strains may lose their ability to produce chlamydospores after repeated subculturing.

COMPOSITION

Ingredients	Gms / Ltr
Ammonium sulphate	1.000
Monopotassium phosphate	1.000
Biotin	0.000005
Trypan blue	0.100
Purified polysaccharide	20.000
Agar	15.000

PRINCIPLE

Ammonium sulphate acts as sources of ions that simulate metabolism. Monopotassium phosphate provides buffering to the medium. Biotin provides the necessary vitamins required for metabolism. Purified polysaccharide acts as a source of carbon. Trypan blue is a vital dye absorbed selectively by the chlamydospores and imparts blue colour to chlamydospores, whereas the filaments are colourless.

INSTRUCTION FOR USE

- Dissolve 37.1 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to blue homogeneous free flowing powder.
Appearance of prepared medium : Blue coloured opaque gel forms in Petri plates.
pH (at 25°C) : 5.1±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Chlamydospores	Incubation Temperature	Incubation Period
Candida albicans	10231	10-100	Good-luxuriant	>=50%	Positive	20-25°C	2-6 Days
Candida albicans	24408	10-100	Good-luxuriant	>=50%	Negative	20-25°C	2-6 Days
Candida tropicalis	1369	10-100	Good-luxuriant	>=50%	Negative	20-25°C	2-6 Days

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

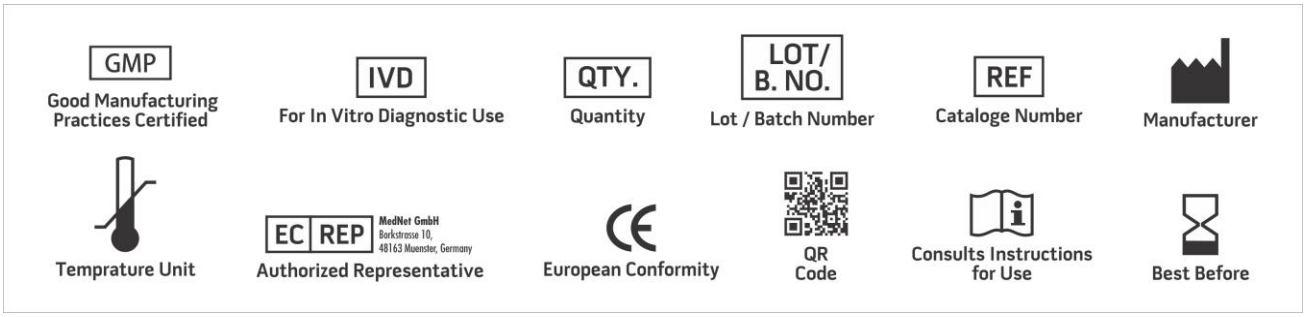
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Nickerson, 1953, J. Infect. Dis., 92:20.
3. Ryan K. J., Ray C. G., (Eds.), 2004, Sherris Medical Microbiology, 4th Ed., McGraw Hill.
4. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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