

## Technical Information

### Fluid Sabouraud Medium

#### Product Code: DM 1013

**Application:** - Fluid Sabouraud Medium is recommended for use as a sterility testing medium for moulds and lower bacteria in pharmaceutical preparations.

#### Composition\*\*

Ingredients	Gms / Litre
Casein enzymic hydrolysate	5.000
Peptic digest of animal tissue	5.000
Dextrose	20.000
Final pH ( at 25°C)	5.7±0.2

\*\*Formula adjusted, standardized to suit performance parameters

#### Principle & Interpretation

Fluid Sabouraud Medium is based on the formulation described by Sabouraud <sup>(1)</sup> for the cultivation of yeasts, moulds, and aciduric microorganisms, particularly useful for the fungi associated with skin infections. It is also recommended for use as a sterility testing medium for moulds and lower bacteria. This mycological sterility testing medium is used in accordance with USP <sup>(2)</sup> and the FDA <sup>(3)</sup> for the determination of fungistatic activity of pharmaceutical products to avoid false sterility tests. The acid reaction of the medium is inhibitory to a large number of bacteria and makes the medium particularly well suited for cultivating fungi and acidophilic microorganisms <sup>(4-6)</sup>.

Casein enzymic hydrolysate and peptic digest of animal tissue provide nitrogenous and carbonaceous compounds. Dextrose is the energy source. The low pH favours fungal growth and inhibits contaminating bacteria from clinical specimens <sup>(4)</sup>. Some pathogenic fungi may produce infective spores, which can easily be dispersed in air, so examination should be carried out in a safety cabinet.

For isolation of fungi from potentially contaminated specimens, a selective medium should be inoculated along with the non-selective medium. Incubate at 25-30°C with increased humidity and examine at least weekly for fungal growth and should be held for 4-6 weeks before being reported as negative. Biochemical test and serological procedures should follow to confirm the findings

#### Methodology

Suspend 30 grams of powder media in 1000 ml distilled water. Shake well & heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

#### Quality Control

##### Physical Appearance

Cream to yellow homogeneous free flowing powder

##### Colour and Clarity of prepared medium

Light amber coloured, clear solution without any precipitate

##### Reaction

Reaction of 3.0% w/v aqueous solution at 25°C. pH : 5.7±0.2

pH range 5.50-5.90

##### Cultural Response/ characteristics

DM 1013: Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours.

Organism	Inoculum (CFU)	Growth
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant
<i>Lactobacillus casei</i> ATCC 9595	50-100	luxuriant
* <i>Aspergillus brasiliensis</i> ATCC 16404	50-100	luxuriant
<i>Candida albi cans</i> ATCC 10231	50-100	luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	luxuriant

Key - \*- Formerly known as *Aspergillus niger*

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

**Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.

## Further Reading

1. Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
2. The United States Pharmacopoeia, 2006, USP29/NF24, the United States Pharmacopeial Convention. Rockville, MD
3. Food and Drug Administration, 1992, Bacteriological Analytical Manual, 7th Edition. F. D. A Washington, D. C.
4. Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Tenover F. C., Tenover R. H., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., ASM, Washington, D.C.
5. Ajello L., Georg L. K., Kaplan W. and Kaufman L., 1963, Laboratory Manual for Medical Mycology, DHEW Publication No. 994, US Govt. Printing Office, Washington, D.C.
6. Kavon Chung and Bennett, 1992, Medical Mycology, Lea and Febiger, Philadelphia, Pa.

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