PRODUCT CODE: 413802

Sabouraud Glucose Agar (Ph. Eur.) (Dehydrated Culture Media) for microbiology

Preparation

Suspend 65 grams of the medium in one litre of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes. AVOID OVERHEATING as it facilitates the hydrolysis of the components and the medium remains soft. The prepared medium should be stored at 8-15ºC.

The colour is clear amber, slightly opalescent. The dehydrated medium should be homogeneous, free-flowing and beige in colour. If there are any physical changes, discard the medium.

Uses

SABOURAUD DEXTROSE AGAR can be used for cultivating yeasts, molds and aciduric microorganisms. It is used for cultivating pathogenic fungi, particularly those associated with skin infections. This medium is also used for determining the microbial and fungal content of cosmetics and for the mycological evaluation of food.

The formula is based on the European Pharmacopoeia. Dextrose is the fermentable carbohydrate providing carbon and energy. Peptone mixture provides nitrogen, vitamins, minerals and amino acids essential for growth. Bacteriological agar is the solidifying agent. The high dextrose concentration and acidic pH make this medium selective for fungi.

Georg et al demonstrated that the basic agar fortified by three antibiotics considerably improves the isolation of pathogenic fungi from heavily contaminated sources. To prepare a selective culture medium aseptically add the following for every litre of medium before use: 0.4g Cycloheximide; 20 units Penicillin; 40mg Streptomycin.

One can obtain a very rich Sabouraud medium by dissolving the medium in one litre of Heart Infusion.
The European Pharmacopoeia recommends this medium in the Paragraph 2.6.12 Microbiological examination of non-sterile products: Microbial enumeration tests for promoting the growth of *Candida albicans ATCC 10231* and *Aspergillus brasiliensis ATCC 16404* to inoculate ≤100 CFU at 20-25ºC for ≤5 days.

The European Pharmacopoeia recommends in the Paragraph 2.6.13 “Microbiogical examination of non-sterile products”:

Test for specified microorganisms:

Use Dextrose Sabouraud Agar for growth promotion. After incubation at 30-35ºC for 3-5 days in Dextrose Sabouraud Broth subculture on the plate of Dextrose Sabouraud Agar and incubate at 30-35ºC for 24-48 hours.

Interpretation

Growth of white colonies may indicate the presence of *Candida Albicans*. This is confirmed by identification tests. The product complies with the test if such colonies are not present or if the confirmatory identification tests are negative.

Composition

See in Data Sheet (TDS).

Microbiological Test

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 30 °C and observed after 3-7 days.

Microorganism	Growth	Inoculum (CFU/ml)	Recovery Rate (%)
***Aspergillus brasiliensis ATCC 16404*	Good	≤100	≥70
**Candida Albicans ATCC 10231*	Good	≤100	≥70
Escherichia coli ATTC 25922	Moderate-Good	≤100	≥70
Escherichia coli ATTC 8739	Moderate-Good	≤100	≥70
Lactobacillus casei ATCC 9595	Good	≤100	≥70
Saccharomyces cerevisiae ATCC 9763	Good	≤100	≥70

According European Pharmacopoeia 7.0
* Incubate at 30-35ºC for 24-48 hours. Total count ≤100 CFU/ml to incubate at 20-25ºC for ≤5 days.
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Storage

Once opened keep powdered medium closed to avoid hydration.

PanReac Química S.L.U.
C/ Garraf, 2 • Polígono Pla de la Bruguera • E-08211 Castellar del Vallès (Barcelona) Spain
Phone + 34 937 489 400 • Fax + 34 937 489 401 • info.es@itwreagents.com • www.itwreagents.com