

Dehydrated Culture Media Bases / Media Supplements

# **Technical Information**

## Littman Oxgall Broth Base

#### Product Code: DM 1663

Application: - Littman Oxgall Broth Base with added streptomycin is recommended for selective enrichment, primary isolation and cultivation of pathogenic fungi.

| Composition**  |             |  |
|--|-------------|--|
| Ingredients  | Gms / Litre |  |
| Peptic digest of animal tissue   | 10.000      |  |
| Diastase   | 10.000      |  |
| Oxgall   | 15.000      |  |
| Crystal violet   | 0.0 10      |  |
| Final pH ( at 25°C)<br>**Formula adjusted, standardized to suit performance parameters | 7.0±0.2     |  |

#### Principle & Interpretation

Littman Oxgall Broth Base has been as described by Littman for the selective enrichment and cultivation of fungi <sup>(1, 2)</sup>. This medium is primarily used for the selective enrichment of pathogenic skin fungi (dermatophytes) and saprophytic fungi from various clinical specimens. The presence of the selective agents like oxgall, crystal violet and streptomycin make the medium highly selective for the cultivation of fungi. In addition to being a selective agent, oxgall also prevents the spreading of fungal colonies.

Peptic digest of animal tissue in the media provides nitrogen, amino acids and carbon. Dextrose is the energy source. Crystal violet and streptomycin inhibit most of the bacteria. Oxgall restricts spreading of fungal colonies. The neutral pH favours the growth of many pathogenic fungi.

The specimens are first enriched in broth and then cultured on agar medium. Incubation should be carried out for up to 8 days. Whenever *Nocardia asteroides, Streptomyces* or any streptomycin-sensitive microorganisms are to be cultured, use the media without streptomycin

## Methodology

Suspend 35.01 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. Cool to 45°C and aseptically add sterile streptomycin to a final concentration of 30 mcg/ml of medium.

## **Quality Control**

Physical Appearance Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium Blue coloured clear solution in tubes

Reaction Reaction of 3.5% w/v aqueous solution at 25°C. pH : 7.0±0.2 **pH range**: 6.8-7.4

Cultural Response/Characteristics DM 1663: Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours





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| Organism                              | Growth (Plain medium) | Growth with Streptomycin |
|---------------------------------------|-----------------------|--------------------------|
| Aspergillus flavus ATCC 22547         | Luxuriant             | Good-Luxuriant           |
| Candida albi cans ATCC1 0231          | Good-Luxuriant        | Good-Luxuriant           |
| Escherichia coli ATCC 25922           | Good-Luxuriant        | inhibited                |
| Microsporum audouinii ATCC 9079       | Luxuriant             | Good-Luxuriant           |
| Saccharomyces cerevisiae ATCC 9763    | Good-Luxuriant        | Good-Luxuriant           |
| Saccharomyces uvarum ATCC 28098       | Good-Luxuriant        | Good-Luxuriant           |
| Trichophyton mentagrophytes ATCC 9533 | good                  | Good                     |

#### 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<sup>0</sup> in sealable plastic bags for 2-5 days.

### **Further Reading**

1. Littman M. L., 1947, Science, 106:109.

2. Littman M. L., 1948, Am. J. Clin. pathol., 18:409.

#### **Disclaimer**:

User must ensure suitability of the product(s) in their application prior to use.

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