Littman Oxgall HiVeg™ Agar / Broth Base MV373 / MV663

Littman Oxgall HiVeg Agar / Broth Base with added Streptomycin is recommended for selective enrichment and cultivation of fungi, especially dermatophytes.

Composition** :

Ingredients	MV373 Grams/Litre	MV663 Grams/Litre
HiVeg peptone	20.00	20.00
Dextrose	10.00	10.00
Synthetic detergent No. II	5.00	5.00
Crystal violet	0.01	0.01
Agar	20.00	—

Final pH (at 25°C) 7.0 ± 0.2
** Formula adjusted, standardized to suit performance parameters

Directions :

Suspend 55 grams of MV373 or 35 grams of MV663 in 1000 ml distilled water. 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.

Principle and Interpretation :

These media are prepared from vegetable peptones which makes the media free from BSE/TSE risks associated with animal based peptones. Littman Oxgall HiVeg media are the modifications of Littman Oxgall media which were formulated by Littman (1). In the comparative study, Littman (2) compared this medium with Sabouraud Dextrose Agar using a large variety of pathogenic and Saprophytic fungi. The isolation of fungi on this medium was three times more efficient than on Sabouraud Dextrose Agar.

Littman Oxgall HiVeg Agar Base is used for primary isolation of fungi and Littman Oxgall HiVeg Broth Base is used for selective enrichment of fungi especially dermatophytes. The media may be used for estimation of the normal fungal flora of faeces, sputum. Agar medium is used for plate count of viable saprophytic fungi in foodstuffs, air and soil. Crystal violet and Streptomycin has inhibitory effect on most of the bacteria. Synthetic detergent No. II restricts spreading of fungal colonies. The neutral pH favours growth of many pathogenic fungi. HiVeg peptone provides essential nutrients, while dextrose serves as source of carbon and energy for enhanced microbial growth.

For inoculation, skin or nail scraping or infected hair is directly placed on the surface of agar while sputum, faeces etc. are spread over the surface with sterile swab or the specimen are first enriched in broth and then cultured on agar medium. The incubation should be carried for a period of 8 days. Whenever *Nocardia asteroides*, *Streptomyces* or any Streptomycin sensitive microorganisms are to be cultured, use the media without Streptomycin.

For best results, isolation plates should be made with about 30 ml of medium per plate. Plates should be allowed to stand, preferably for about six hours, before using.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV373/MV663 HiVeg peptone Synthetic detergent No. II	**M373/M663** Peptic digest of animal tissue Oxgall

Recommended for	:	Selective enrichment and cultivation of fungi.
Reconstitution	:	(MV373) : 55.0 g/l
	:	(MV663) : 35.0 g/l
Quantity on preparation (500g)	:	(MV373) : 9.09 L
	:	(MV663) : 14.28 L
pH (25°C)	:	7.0 ± 0.2
Supplement	:	Streptomycin
Sterilization	:	121°C / 15 minutes.

Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

Quality Control :

Appearance of Powder

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Gelling

Firm, comparable with 2.0% Agar gel of MV373.

Colour and Clarity

Blue coloured slightly opalescent gel forms in petri plates, clear solution in tubes.

Reaction

Reaction of 5.5% w/v of MV373 or 3.5% w/v of MV663 aqueous solution is pH 7.0 ± 0.2 at 25°C.

Cultural Response

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

Organisms (ATCC)	Plain medium	with Streptomycin
Aspergillus flavus (22547)	luxuriant	luxuriant
Microsporum audouinii (9079)	luxuriant	luxuriant
Escherichia coli (25922)	luxuriant	inhibited
Candida albicans (10231)	good to luxuriant	good to luxuriant
Saccharomyces cerevisiae (9763)	good to luxuriant	good to luxuriant
Saccharomyces uvarum (9080)	good to luxuriant	good to luxuriant
Trichophyton mentagrophytes (9533)	good	good

References :

1. Littman M. L., 1947, Science, 106:109.
2. Littman 1948, AM. J. Clin. pathol. 19:409.
3. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, 3rd edition, Williams and Wilkins, Baltimore.

◉ Prepared from GMO free Vegetable proteins replacing Animal based peptones. Freedom from BSE/TSE worries.