

Actidione HiVeg™ Agar w/ Actidione / Base w/o Actidione MV400/ MV058

Actidione HiVeg Agar with Actidione / Base without Actidione is used for the enumeration and detection of bacteria in specimens containing large number of yeasts and moulds.

Composition** :

Ingredients	MV400	MV058
	Grams/Litre	Grams/Litre
HiVeg hydrolysate	5.00	5.00
Yeast extract	4.00	4.00
Dextrose	50.00	50.00
Monopotassium phosphate	0.55	0.55
Potassium chloride	0.425	0.425
Calcium chloride	0.125	0.125
Magnesium sulphate	0.125	0.125
Ferric chloride	0.0025	0.0025
Manganese sulphate	0.0025	0.0025
Brom cresol green	0.022	0.022
*Actidione (Cycloheximide)	0.01	-
Agar	15.00	15.00

Final pH (at 25°C) 5.5 ± 0.2

** Formula adjusted, standardized to suit performance parameters

Directions :

Suspend 75.26 grams of MV400 or 75.25 grams of MV058 in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C. For (MV058) aseptically add 10 mg cycloheximide to the medium. Mix well before pouring into sterile petriplates.

Warning : *Actidione (Cycloheximide) is very toxic. Avoid skin contact or aerosol formation and inhalation.

Principle and Interpretation :

This medium is prepared by replacing Casein enzymic hydrolysate with HiVeg hydrolysate. Actidione HiVeg Agar is the modification of Actidione Agar formulated by Green and Gray (1) which can be used for microbiological investigation during brewing and baking. Actidione (Cycloheximide) at a concentration of 0.001% permits the growth of bacteria and inhibits the growth of most yeasts and moulds except dermatophytes. This medium may be used for the estimation of bacterial contamination of pitching yeast. Addition of penicillin or streptomycin may be used for selective isolation of dermatophytes.

HiVeg hydrolysate acts as source of nitrogen while yeast extract serves as a rich reservoir of vitamins. Dextrose in high amount along with mineral salts at acidic pH favour sugar fermentation.

Product Profile :

Vegetable based (Code MV)©	Animal based (Code M)
MV400/MV058 HiVeg hydrolysate	M400/M058 Casein enzymic hydrolysate

Recommended for : Enumeration and detection of bacteria in specimens containing large number of yeasts and moulds.

Reconstitution : (MV400) : 75.26 g/l
(MV058) : 75.25 g/l

Quantity on preparation (500g) : 6.64 L

pH (25°C) : 5.5 ± 0.2

Supplement : Cycloheximide for (MV058)

Sterilization : 121°C / 15 minutes.

Storage : (MV400) : Dry Medium and Prepared Medium 2 - 8°C.

(MV058) : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

Quality Control:

Appearance of Powder

Light green coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity

Greenish blue coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 7.53% w/v aqueous solution is pH 5.5 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 30°C for 40-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Escherichia coli</i> (25922)	10 ²	good-luxuriant	> 50%
<i>Lactobacillus fermentum</i> (9338)	10 ²	good-luxuriant	> 50%
<i>Proteus mirabilis</i> (25933)	10 ²	good-luxuriant	> 50%
<i>Saccharomyces cerevisiae</i> (9763)	10 ²	inhibited	0%
<i>Saccharomyces uvarum</i> (9080)	10 ²	inhibited	0%

References :

1. Green, S.R. and Gray, P.P., 1950, Wallerstein Lab. Communication, 13:357.