

**Clostridial HiVeg™ Agar****MV497**

Clostridial HiVeg Agar is recommended for the selective isolation of pathogenic *Clostridia* from mixed flora.

**Composition \*\* :**

| Ingredients                     | Grams/Litre |
|---------------------------------|-------------|
| HiVeg hydrolysate               | 17.0        |
| Papaic digest of soyabean meal  | 3.0         |
| Dextrose                        | 6.0         |
| Sodium chloride                 | 2.5         |
| Sodium thioglycollate           | 1.8         |
| L-Cystine                       | 0.25        |
| Sodium formaldehyde sulfoxylate | 1.0         |
| Neomycin sulphate               | 0.15        |
| Sodium azide                    | 0.2         |
| Agar                            | 14.5        |

Final pH (at 25°C)  $7.0 \pm 0.2$

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

**Directions :**

Suspend 46.4 grams 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.

**Warning:** Sodium Azide has a tendency to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables.

**Principle and Interpretation :**

Clostridial HiVeg Agar is prepared by completely replacing animal based peptones by vegetable peptones. Clostridial HiVeg Agar is the modification of Clostridial Agar which is recommended for selective isolation of pathogenic *Clostridia* from mixed flora and recovery of *Clostridia* from clinical and nonclinical materials (1).

This medium contains a variety of nutrients and biochemicals to support the growth of *Clostridia*. HiVeg hydrolysate and Papaic digest of soyabean meal provide the essential nutrients mainly the nitrogen compounds for the growth of *Clostridia*. Dextrose serves as the carbon or fermentable carbohydrate source. L-Cystine, sodium thioglycollate and sulfoxylate serve as reducing agent which create favorable low O-R potential for growth of *Clostridial* species. Neomycin sulphate and sodium azide inhibit a number of organisms including *Bacillus* species, enteric bacilli, *Proteus*, *Pseudomonas* and most of the cocci.

**Quality Control :****Appearance of powder**

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

**Gelling**

Firm, comparable with 1.45% Agar gel.

**Colour and Clarity**

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

**Reaction**

Reaction of 4.64% w/v aqueous solution is pH  $7.0 \pm 0.2$  at 25°C.

**Product Profile :**

| Vegetable based (Code MV)Ⓢ            | Animal based (Code M)   |
|---------------------------------------|---|
| <b>MV497</b><br>HiVeg hydrolysate     | <b>M497</b><br>Casein enzymic hydrolysate                                 |
| <b>Recommended for</b>                | The selective isolation of pathogenic <i>Clostridia</i> from mixed flora. |
| <b>Reconstitution</b>                 | 46.4 g/l  |
| <b>Quantity on preparation (500g)</b> | 10.77 L   |
| <b>(100g)</b>                         | 2.15 L  |
| <b>pH (25°C)</b>                      | $7.0 \pm 0.2$   |
| <b>Supplement</b>                     | None  |
| <b>Sterilization</b>                  | 121°C / 15 minutes.   |
| <b>Storage</b>                        | Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.                         |

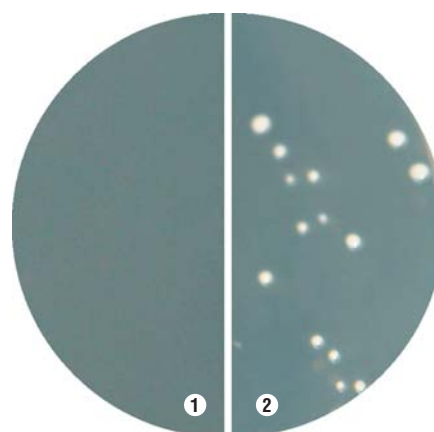
**Cultural Response**

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

| Organisms (ATCC)                       | Inoculum (CFU)  | Growth    | Recovery |
|--|-----------------|-----------|----------|
| <i>Clostridium perfringens</i> (12924) | $10^2$ - $10^3$ | luxuriant | >50%     |
| <i>Clostridium sporogenes</i> (11437)  | $10^2$ - $10^3$ | luxuriant | >50%     |
| <i>Clostridium tetani</i> (10779)      | $10^2$ - $10^3$ | luxuriant | >50%     |
| <i>Escherichia coli</i> (25922)        | $10^2$ - $10^3$ | inhibited | 0%       |
| <i>Staphylococcus aureus</i> (25923)   | $10^2$ - $10^3$ | inhibited | 0%       |

**References :**

1. Vera J., 1962, Presented Pa. Soc. Med. Tech., York, Pa.



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(Photo taken against dark background)

1. Control
2. *Clostridium perfringens*