# Safety 1st

## 100% Veg Peptones

*Freedom from BSE / TSE worries*

HiMediaLaboratories™

HiMedia Laboratories Pvt. Limited

www.himedialabs.com

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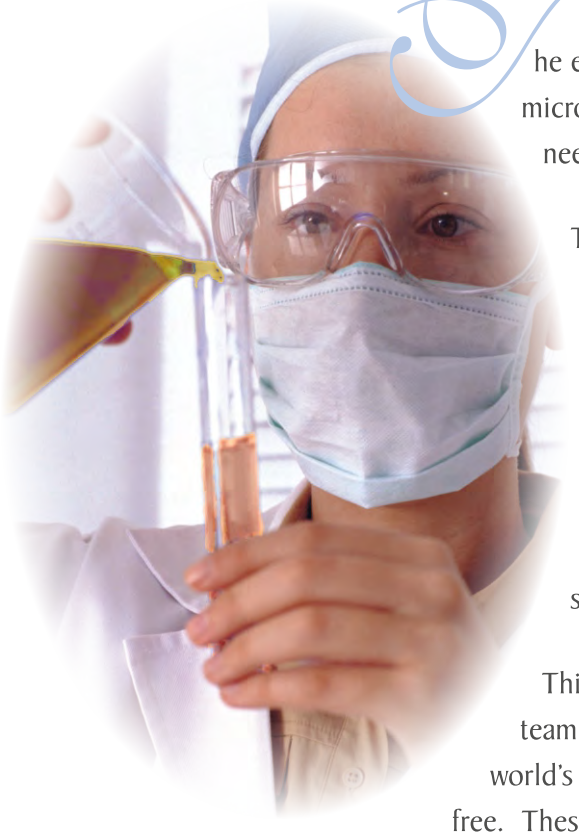
| | | | | |
|---|---|---|---|---|
| AgroDiagnos | Hi24 | HiDtect | HiNeisseria | MAGSEP |
| AlbuXL | Hi25 | HiDuo Autostainer | HiOsteoXL | MastiTest |
| AntiSept | HiAcinetobacter | HiE.coli | HiPer | Metaloop |
| AquaLab | HiAdipoXL | HiEcoAirflow | HiPurA | Microl |
| Aureus Alert | HiAdjv | HiEncap | HiPurair | MolBio HiMedia |
| Auto HiPette | HiAir Petri | HiEndoXL | HiRapid | MRSA Alert |
| Autopette | HiAir Purifier | HiEnterococci | HiSafe Blood Culturing | NoSera & AgroDiagnos |
| Carbokit | HiAquaCheck | HiFast | HiSalmonella | ObsteSept |
| Cell Culture | HiAssorted | HiFi | HiSelective | Octodiscs |
| CertichIor | HiBacillus | HiFluoro | HiSensitivity | Phytajar |
| Certisafe | HiBio-ID | HiFoliar | HiSep | PlantiGen HiMedia |
| CleriGar | HiCandida | HiFoliar Nutrient | HiShield | Plantray |
| CleriGel | HiCaps | HiFresh | Hisol | Quicksep |
| Clinicol | HiCarbo | HiGel | HiSpark | Rajhans |
| Combiclean | HiCarbohydrate | HiGelacryl | HiStaph | RDP Trio |
| CombiPura | HiCare | HiGiene | Hi-Steri | Spark |
| CombiSept | HiCartri | HiGlutaXL | Histerine | Ste rapid |
| CryoXL | HiCertichIor | HiH$_2$S | HiStrep | Ste rub |
| EnviroGel | HiChondroXL | Hilgloo | HiSurba | Sterhand |
| EZ Blue | HiColiform | HiIMVic | HiTest | Steriswift |
| EZ Mycoplasma | HiComb | HiKaryoXL | HiTetra | Steriwash |
| EZAssay | HiCombat | HiListeria | HiTouch | SurgiSept |
| EZcount | HiCombi Dual | HiLoop | HiVeg | Test N B Sure |
| EZdetect | HiCrome | Hi-Media | HiVeg Base | Uricol |
| EZkill | HiCryl | HiMedia ATM | HiVeg Media | VRE Alert |
| EZSep | HiCulture | HiMedia Consumables | HiVegTONEs | XPress |
| EZstain | HiCynth | HiMedia DCM | HiVibrio | X-Press Blue |
| EZXpand | HiDex | HiMedia Fastest | HiViral | Zymefree |
| EzyMIC | HiDiff | HiMedia HiDtect | HiWater | |
| Flexiloop | HiDip slides | HiMedia LabAid | HiWipe | |
| Flexiplate | HiDiscs | HiMedia Laboratories Pvt. Limited | HybridoXL | |
| For Life is precious | Hidophor | HiMedia Swiftest | Life is precious | |
| GelGellan | Hidophos | HiMesoXL | LoSera | |
| Granulated | Hidorex | HiMotility | MAGBEADS | |

# Safety 1st



The efficacy of Food Safety hinges on effective use of microbiological tools however, the safety of these tools themselves needs to be looked into first.

The mad-cow disease of past few years has fouled many a microbiological testing tool due to the uncertain origin of some peptone constituents. This question needs to be addressed by the food microbiologist to begin with.

The BSE/TSE apprehensions must be removed from our collective subconscious so that they are not allowed to colour our imagination and our testing procedures, to in turn succeed in placing riders on the flawlessness of our tests.

This line of thinking fired the imagination of HiMedia's research team some 9 years ago. The results came soon in the shape of world's first range of vegetable peptones which were 100% animal free. These were standardized against the results obtained from animal based peptones.

*F-r-e-e-d-o-m from BSE / TSE worries*

The present catalogue presents the technical specifications of these peptones in dehydrated powder form, as well as their comparative performance against corresponding animal based peptones.

We invite the Food Safety specialists to ask us for samples of these animal free peptones for their own evaluation.

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# PRODUCT INDEX

of Equivalent Vegetable Peptones To Animal Based Peptones

| Vegetable Based Peptones | | | Animal Based Peptones | |
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| Code No. | Vegetable Based Product | Page No. | Code No. | Animal Based Product |
| RM001V | HiVeg™ Peptone | 1 | RM001 | Peptone |
| RM635V | HiVeg™ Peptone No. 1 | 2 | RM635 | Meat Peptone |
| RM020V | HiVeg™ Peptone No. 2 | 3 | RM020 | Gelatin Peptone |
| RM005V | HiVeg™ Peptone No. 3 | 4 | RM005 | Proteose Peptone |
| RM006V | HiVeg™ Peptone No. 4 (HiVeg™ Mycological Peptone) | 5 | RM006 | Peptone M |
| RM021V | HiVeg™ Peptone No. 5 | 6 | RM021 | Bio Peptone |
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| RM030V | HiVeg™ Hydrolysate No. 1 | 12 | RM030 | Tryptose |
| RM023V | HiVeg™ Hydrolysate No. 2 | 13 | RM023 | Liver Hydrolysate |
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| RM012V | HiVeg™ Hydrolysate No. 4 | 15 | RM012 | Lactalbumin hydrolysate |
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| RM022V | HiVeg™ Infusion No. 1 | 19 | RM022 | Liver Infusion Powder |
| RM192V | HiVeg™ Infusion No. 2 | 20 | RM192 | Meat Infusion Powder |
| RM191V | HiVeg™ Infusion | 21 | RM191 | Heart Infusion Powder |
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| RM6394V | HiVeg™ Proteose Peptone A | 23 | RM6394 | Proteose Peptone A |
| RM188V | HiVeg™ Special Infusion | 24 | RM188 | Brain Heart Infusion Powder |

In addition to the above products HiMedia already has regular non-animal source raw materials as under:

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|---|---|---|
| RM9149V | HiVeg™ Pea Hydrolysate | 25 |
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# HiVeg™ Peptone RM001V

It is recommended for use as a culture media ingredient in variety of media as well as for commercial production of enzymes, vaccines, antibiotics and other products. It can successfully replace animal origin Peptone (RM001) in all culture media.

## Principle and Interpretation :

HiVeg™ Peptone is an enzymic hydrolysate of vegetable proteins that gives comparable growth promoting properties as animal origin Peptone (RM001).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder,having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

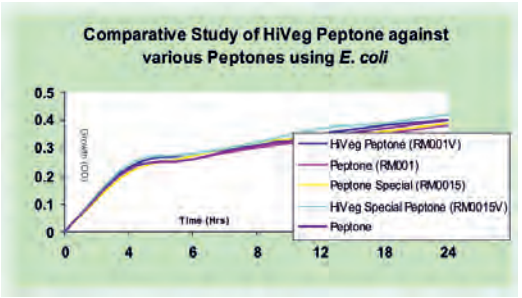
Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Nutrient HiVeg™ Agar (MV001), using HiVeg™ Peptone as an ingredient.

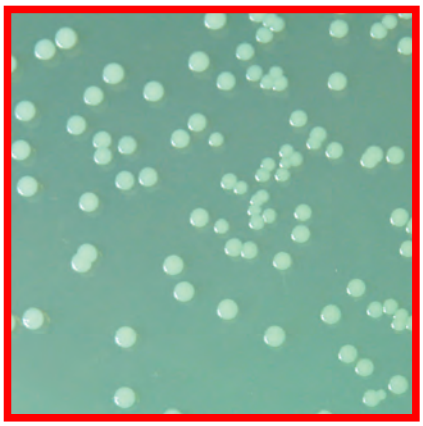
| Organism | Growth |
|---|---|
| *Escherichia coli* ATCC 25922 | luxuriant |
| *Pseudomonas aeruginosa* ATCC 27853 | luxuriant |
| *Enterobacter aerogenes* ATCC 13048 | luxuriant |
| *Salmonella* Typhi ATCC 6539 | luxuriant |
| *Staphylococcus aureus* ATCC 25923 | luxuriant |
| *Streptomyces albus* ATCC 3004 | luxuriant |
| *Streptococcus pyogenes* ATCC 19615 | luxuriant w/ beta haemolysis (With addition of sterile 5% sheep blood to above medium, after an incubation at 35-37°C for 48 hours. |
| *Neisseria gonorrhoeae* ATCC 19424 | luxuriant w/ beta haemolysis (With addition of sterile 10% sheep blood to above medium heated to 80-90°C until blood has turned to chocolate brown and incubated in 10% $CO_2$ atmosphere at 35-37°C for 48 hours). |

| Chemical Analysis | |
|---|---|
| Total Nitrogen | >= 11.0% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 15% |

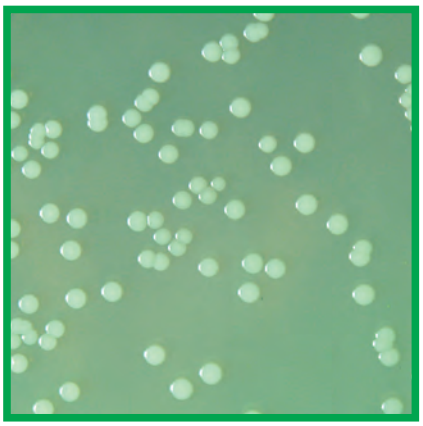
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



Nutrient Agar (M001) where **Peptone (RM001)** is used as an ingredient *Staphylococcus aureus* (ATCC 25923)



Nutrient HiVeg™ Agar (MV001) where **HiVeg™ Peptone (RM001V)** is used as an ingredient. *Staphylococcus aureus* (ATCC 25923)

# HiVeg™ Peptone No. 1 RM635V

It is recommended for use in general purpose culture media for routine cultivation of a variety of microorganisms. It can also be used in mass scale cultivation of microorganisms for antibiotics, enzymes, vitamins production or for other similar products of microbial origin.

## Principle and Interpretation :

HiVeg™ Peptone No. 1 is an enzymic hydrolysate of specially selected vegetable proteins. It is recommended for use in bacteriological culture media that can successfully replace Meat Peptones (RM635).

## Quality Control :

**Appearance of powder**

Light yellow to yellow may have slight green tinge, homogeneous free flowing powder having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution remains clear without haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing BPL HiVeg™ Agar (MV1020) using HiVeg™ Peptone No. 1 as an ingredient.

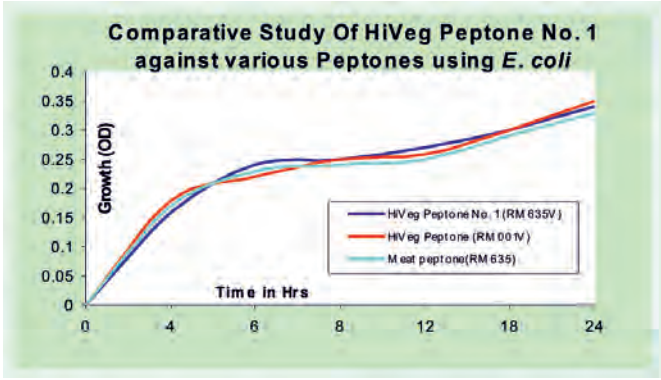
| Organism | Growth | Colour of colony |
|---|---|---|
| *Bacillus subtilis* ATCC 6633 | None-poor | - |
| *Enterococcous faecalis* ATCC 29212 | None-poor | - |
| *Escherichia coli* ATCC 25922 | Good-luxuriant | Yellow |
| *Salmonella* Choleraesuis ATCC 13312 | Good-luxuriant | Pink-red |
| *Salmonella* Enteritidis ATCC 13076 | Good-luxuriant | Pink-red |
| *Salmonella* Typhimurium ATCC 14028 | Good-luxuriant | Pink - red |
| *Staphylococcus aureus* ATCC 25923 | None-poor | - |

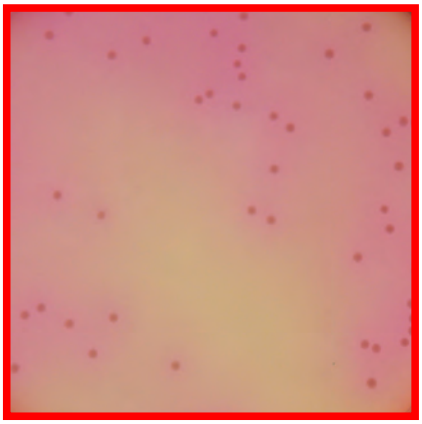
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 10.0% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 4.50% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 10.0% |

## Storage and Shelf Life :

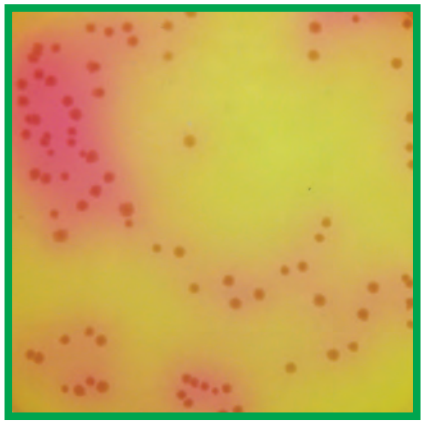
Store below 30°C. Use before expiry date on the label.



**BPL Agar** (M1020) prepared by using **Peptone No. 1** (RM635)is used as an ingredient.

*Salmonella* Enteritidis (ATCC 13076)



**BPL HiVeg™ Agar** (MV1020) prepared by using **HiVeg™ Peptone No. 1** (RM635V) as an ingredient.

*Salmonella* Typhimurium (ATCC 14028)



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# HiVeg™ Peptone No. 2 RM020V

It is recommended to be used in following media: Antibiotic assay media yielding low but reliable and reproducible growth levels. Media for fermentation studies : Purple HiVeg™ Agar Base (MV098), Purple HiVeg™ Broth Base (MV284), Wort HiVeg™ Media (MV129, MV333) Urea HiVeg™ Agar Base (MV112), MacConkey HiVeg™ Agar (MV008, MV081), Violet Red HiVeg™ Agar (MV049), etc.

## Principle and Interpretation :

HiVeg™ Peptone No. 2 is prepared under controlled conditions by enzymic digestion of vegetable proteins. It has nutritional characteristics that matches with Gelatin peptone (RM020).

## Quality Control :

**Appearance of powder**

Light yellow to yellow,may have slight green tinge, homogeneous free flowing powder, having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled/purified water,insoluble in alcohol and ether.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

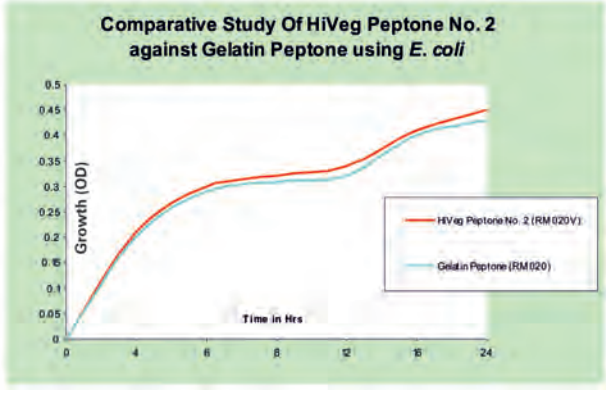
## Cultural Response

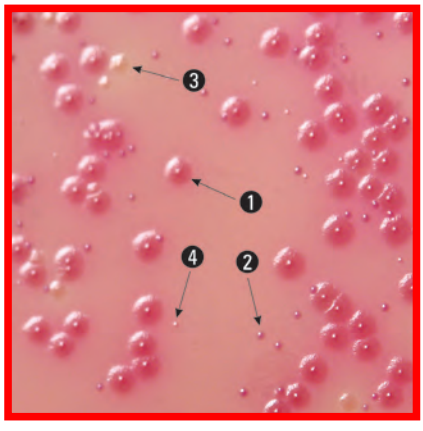
Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing MacConkey HiVeg™ Agar (MV082) using HiVeg™ Peptone No.2 as an ingredient.

| Organism | Growth | Colour of colony |
|---|---|---|
| Escherichia coli ATCC 25922 | Luxuriant | Pink to red with bile precipitate |
| *Enterobacter aerogenes* ATCC 13048 | Luxuriant | Pale pink to red |
| *Enterococcus faecalis* ATCC 29212 | Fair to good | Colourless to pink |
| *Proteus vulgaris* ATCC 13315 | Luxuriant | Colourless |
| *Salmonella Paratyphi* A ATCC 9150 | Luxuriant | Colourless |
| *Shigella flexneri* ATCC 12022 | Fair to good | Colourless |
| *Salmonella Paratyphi* B ATCC 8759 | Luxuriant | Colourless |
| *Salmonella Enteritidis* ATCC 13076 | Luxuriant | Colourless |
| *Salmonella* Typhi ATCC 6539 | Luxuriant | Colourless |
| *Staphylococcus aureus* ATCC 25923 | Fair-good | Pale pink -red |
| **Chemical Analysis** | | |
| Total Nitrogen | >= 11.50% | |
| Amino Nitrogen | >= 3.80% | |
| Sodium chloride | <= 4.0% | |
| Loss on drying | <= 7.0% | |
| Residue on ignition | <= 11.0% | |

## Storage and Shelf Life :

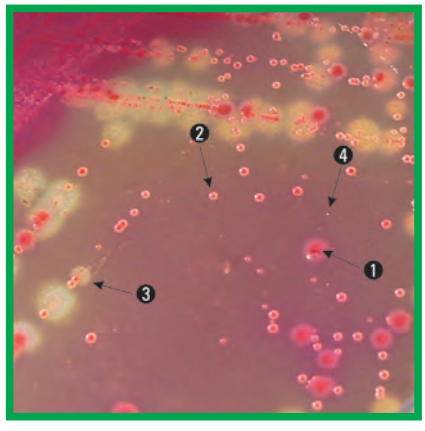
Store below 30°C. Use before expiry date on the label.




MacConkey Agar w/o CV, NaCl w/0.5% Sodium tourocholate (M082) where **Gelatin Peptone (RM020)** is used as an ingredient.

1. *Escherichia coli* (ATCC 25922)
2. *Staphylococcus aureas* (ATCC 25923)
3. *Salmonella* Typhi (ATCC 6539)
4. *Enterococcus faecalis* (ATCC 29212)




MacConkey HiVeg™ Agar (MV082) where **HiVeg™ Peptone No. 2 (RM020V)** is used as an ingredient.

1. *Escherichia coli* (ATCC 25922)
2. *Staphylococcus aureas* (ATCC 25923)
3. *Salmonella* Typhi (ATCC 6539)
4. *Enterococcus faecalis* (ATCC 29212)

# HiVeg™ Peptone No. 3 RM005V

It is highly nutritious and can be employed in culture media for bulk production of antibiotics, enzymes, veterinary preparations, bacterial toxins, etc. It is recommended for use in media that support good growth of a large number of microorganisms including Staphylococci, Streptococci, Pneumococci, Meningococci, Gonococci, among others which require a highly nutritious medium. It is not recommended for carbohydrate studies.

## Principle and Interpretation :

HiVeg™ Peptone No. 3 is an enzymic hydrolysate of vegetable proteins and recommended for cultivation of fastidious pathogens. It can successfully replace Proteose peptone (RM005).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight greenish tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

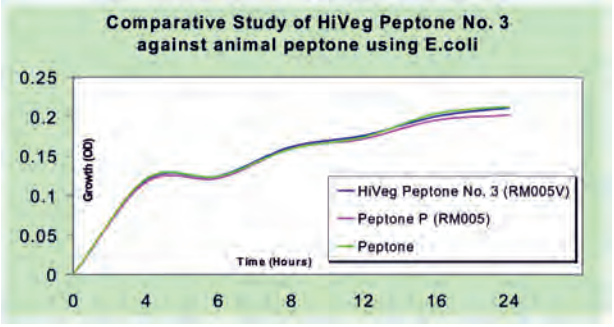
## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Proteose HiVeg™ Agar (MV1176), using HiVeg™ Peptone No 3 as an ingredient.

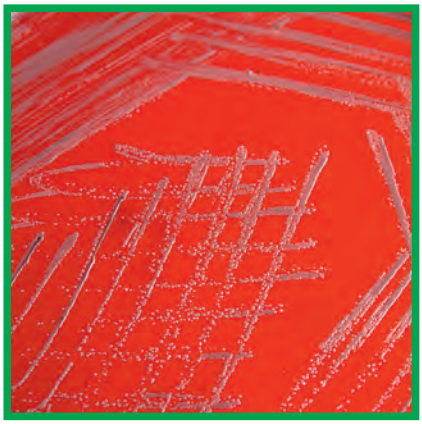
| Organism | Growth |
|---|---|
| *Vibrio cholerae* ATCC15748 | Luxuriant |
| *Vibrio parahaemolyticus* ATCC11344 | Luxuriant |
| **Chemical Analysis** | |
| Total Nitrogen | >= 10.0% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 12% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.




Dextrose Proteose Peptone Agar Base (M734) prepared by using Proteose **Peptone (RM005)** as an ingredient. *Corynebacterium diphtheriae* (ATCC 11913)



Dextrose Proteose Peptone HiVeg™ Agar Base (MV734) prepared by using **HiVeg™ Peptone No. 3 (RM005V)** as an ingredient. *Corynebacterium diphtheriae* (ATCC 11913)



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# HiVeg™ Peptone No. 4 (HiVeg™ Mycological Peptone) RM006V

Recommended for use as culture media ingredient in variety of media for cultivation of yeasts and moulds.

## Principle and Interpretation :

HiVeg™ Peptone No. 4 is prepared under controlled condition from vegetable proteins. It is highly nutritious and supports heavy growth of a wide variety of microorganisms comparable with Peptone M (RM006).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

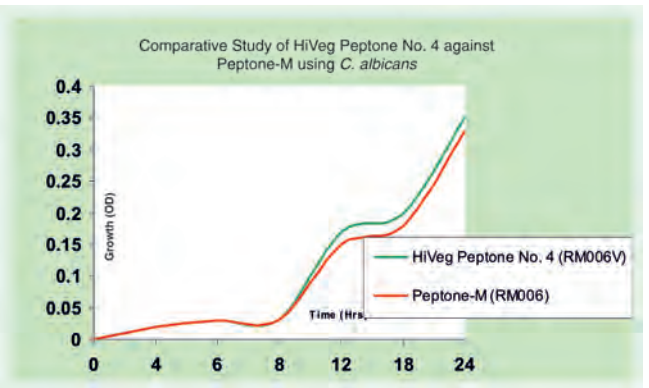
## Cultural Response

Cultural response observed after incubation at 25-30°C for 48-72 hours by preparing Malt Extract HiVeg™ Agar (MV137) using HiVeg™ Peptone No.4 as an ingredient.

| Organism | Growth |
|---|---|
| *Candida albicans* ATCC10231 | Luxuriant |
| *Saccharomyces cerevisiae* ATCC 9763 | Luxuriant |
| *Aspergillus brasiliensis* ATCC 16404 | Luxuriant |
| **Chemical Analysis** | |
| Total Nitrogen | >= 9.50% |
| Amino Nitrogen | >= 3.0% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 18% |

## Storage and Shelf Life :

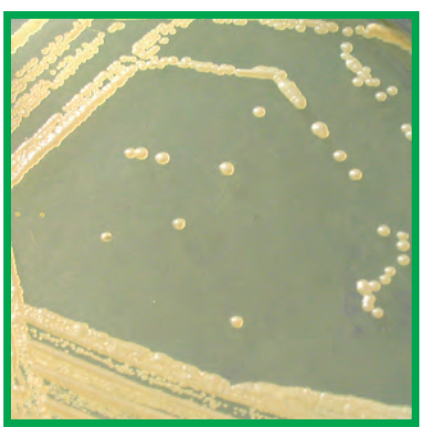
Store below 30°C. Use before expiry date on the label.




Malt Extract Agar (M137)

where **Mycological peptone (RM006)** is used as per ingredient

*Candida albicans* (ATCC 10231)



Malt Extract HiVeg™ Agar (MV137)

where **HiVeg™ Peptone No. 4 (RM006V)** is used as an ingredient

*Candida albicans* (ATCC 10231)

# HiVeg™ Peptone No. 5 RM021V

It can be used for cultivation of fastidious microorganisms in Columbia Broth Base HiVeg™ (MV145), Dextrose HiVeg™ Agar (MV044), Casman HiVeg™ Agar (MV201) etc. Large scale production of antibiotics, enzymes and other products of microbiological origin.

## Principle and Interpretation :

HiVeg™ Peptone No.5 is a mixture of enzymic digests of vegetable proteins. It has high nutritive values to meet the growth requirements of wide variety of microorganisms. It can successfully replace Biopeptone (RM021).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Columbia Broth Base, HiVeg™ (MV145),using HiVeg™ Peptone No.5 as an ingredient.

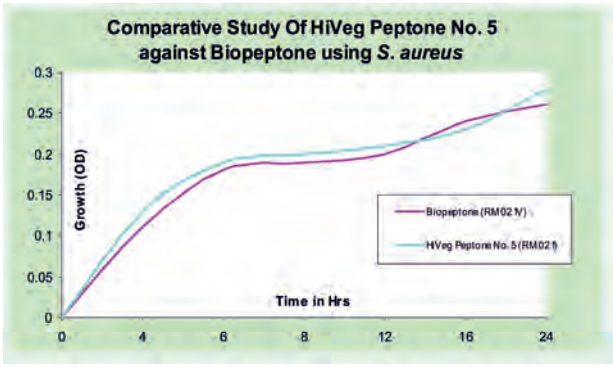
| Organism | Growth |
|---|---|
| *Clostridium perfringens* ATCC 12924 | Luxuriant |
| *Neisseria meningitidis* ATCC 13090 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant |
| *Streptococcus mitis* ATCC 9895 | Luxuriant |

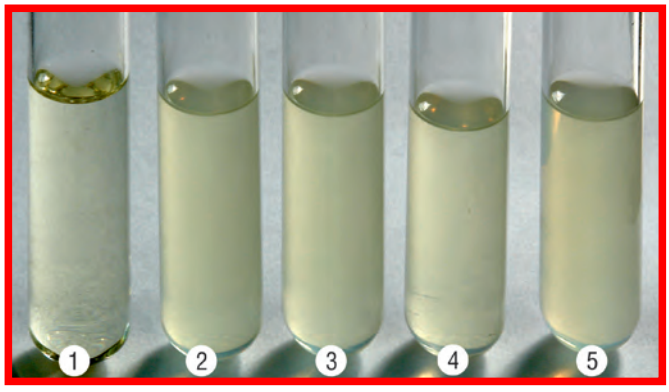
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 11.0% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 6.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 10.0% |

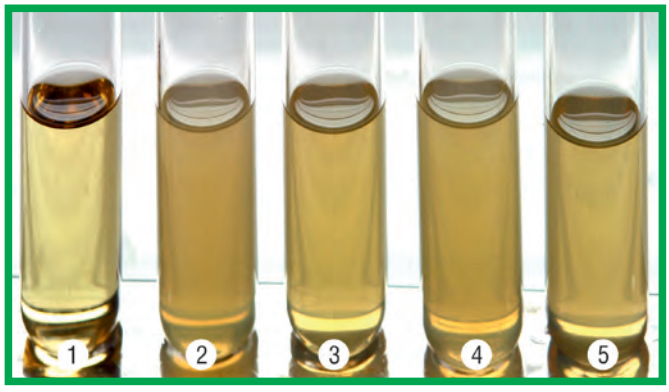
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.




Columbia Broth Base (M145) where **Biopeptone (RM021)** is used as an ingredient.
1. Control 2. *S. pyogenes* (ATCC 19615) 3. *N. meningitidis* (ATCC 13090)
4. *S. mitis* (ATCC 9895) 5. *S. aureus* (ATCC 25923)




Columbia Broth Base HiVeg™ (MV145) where **HiVeg™ Peptone No. 5** (RM021V) is used as an ingredient.
1. Control 2. *S. pyogenes* (ATCC 19615) 3. *N. meningitidis* (ATCC 13090)
4. *S. mitis* (ATCC 9895) 5. *S. aureus* (ATCC 25923)

# HiVeg™ Special Peptone (HiVeg™ Peptone Special) RM015V

It can be used for the preparation of media for cultivation of following bacteria: Neisseria species : G C HiVeg™ Agar Base (MV434), Thayer Martin HiVeg™ Medium Base (MV413) Yersinia species : Yersinia Selective HiVeg™ Agar Base (MV843). Staphylococci and Streptococci : Columbia Blood Agar Base HiVeg™ (MV144) . It can also be used for cultivation of other fastidious bacteria on large scale.

## Principle and Interpretation :

HiVeg™ Special Peptone is manufactured under controlled conditions from vegetable proteins. It is especially adapted for the preparation of media for culturing fastidious bacteria and supports cultural characteristics comparable with Peptone special (RM015).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Columbia Blood Agar Base HiVeg™ (MV144) using HiVeg™ Special Peptone as an ingredient.

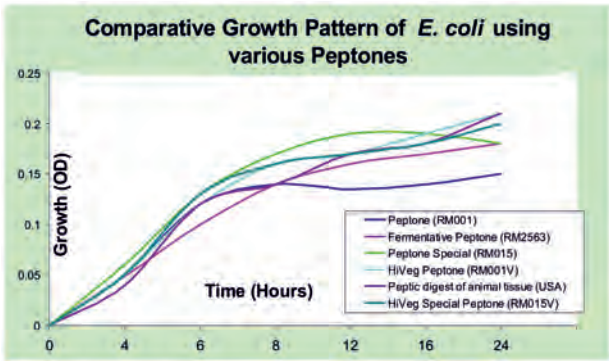
| Organism | Growth | Haemolysis |
|---|---|---|
| *Neisseria meningitidis* ATCC 13090 | Luxuriant | none |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant | beta / gamma |
| *Staphylococcus epidermidis* ATCC 12228 | Luxuriant | gamma |
| *Streptococcus pneumoniae* ATCC 6303 | Luxuriant | alpha |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant | beta |

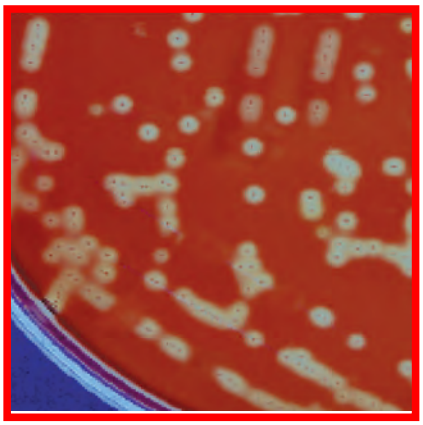
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 11.50% |
| Amino Nitrogen | >= 3.80% |
| Sodium chloride | <= 4.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 9.0% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.

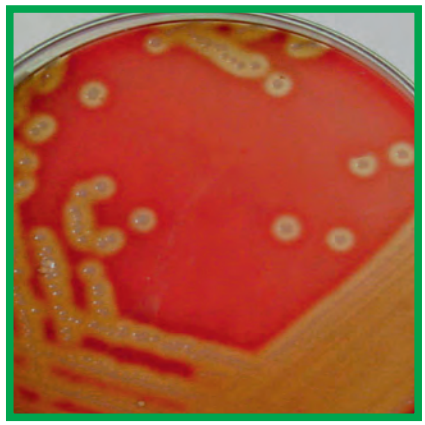


Columbia Blood Agar Base (M144) prepared by using **Special Peptone (RM015)** as an ingredient.

*S. pyogenes*

(ATCC 19615)



Columbia Blood Agar Base HiVeg™ (MV144) prepared by using **HiVeg™ Special Peptone (RM015V)** as an ingredient.

*S. pyogenes*

(ATCC 19615)

# HiVeg™ Extract RM002V

It can be used successfully in following culture media in place of Meat Extract B: General purpose media : Meat Extract B Agar, HiVeg™ (MV806) / HiVeg™ Broth (MV807) and Nutrient HiVeg™ Agar(MV001) / Broth ( MV002) etc. Diagnostic media : CLED HiVeg™ Agar (MV352/MV792), DCLS HiVeg™ Agar (MV160), TSI HiVeg™ Agar (MV021), Wilson Blair HiVeg™ Agar Base (MV331), etc. Bulk production of antibiotics, enzymes and other products.

## Principle and Interpretation :

HiVeg™ Extract is prepared under controlled condition by extracting vegetable proteins. Its Recommended concentration for use is 0.3 - 0.5% w/v and the growth promoting properties are comparable to Meat Extract B Powder (RM002).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Nutrient HiVeg™ Agar (MV001),using HiVeg™ Extract as an ingredient.

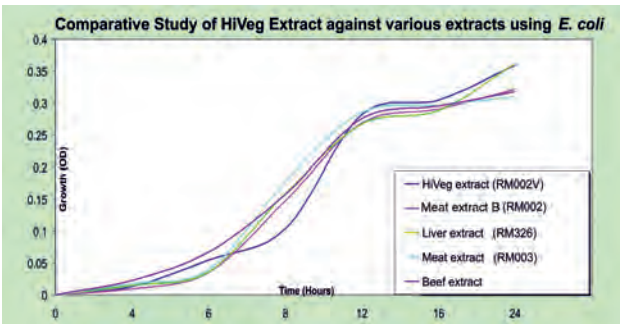
| Organism | Growth |
|---|---|
| *Escherichia coli* ATCC 25922 | Luxuriant |
| *Pseudomonas aeruginosa* ATCC 27853 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Salmonella* Typhi ATCC 6539 | Luxuriant |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant |

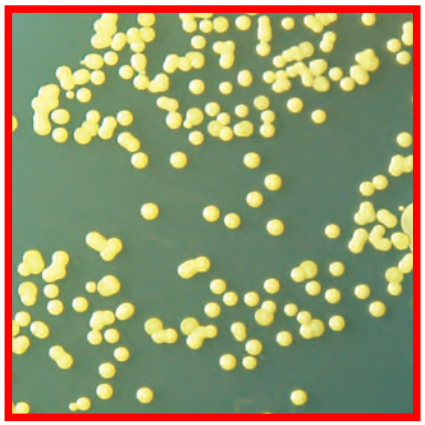
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 9.0% |
| Amino Nitrogen | >= 3.0% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 12% |

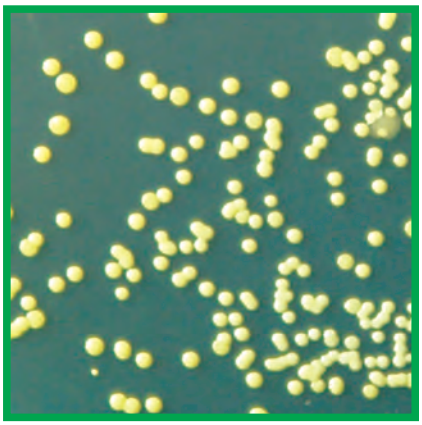
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



Nutrient Agar No.2 (M1269) containing **Meat Extract B (RM002)** as an ingredient.
*E. coli* (ATCC 25922)



Nutrient HiVeg™ Agar No. 2 (MV1269) containing **HiVeg™ Extract (RM002V)** as an ingredient.
*E. coli* (ATCC 25922)



HIMEDIA®

# HiVeg™ Extract No. 1 RM003V

It is used as follows : General purpose media : Standard Nutrient HiVeg™ Media (MV877/ MV116), Staphylococcus Enrichment HiVeg™ Broth (MV464), Disinfectant Test HiVeg™ Broth (MV354).Diagnostic Media : Yersinia Isolation HiVeg™ Agar (MV564), Salmonella HiVeg™ Agar ÖNÖZ (MV573), Inositol Brilliant Green HiVeg™ Agar (MV574), etc. Bulk production of antibiotics, enzymes, steroid vaccines and other products of microbiological origin.

## Principle and Interpretation :

HiVeg™ Extract No. 1 is prepared under controlled conditions by extracting vegetable proteins. Cultural response is comparable with Meat extract powder (RM003). 0.3 - 0.5% concentration supports the growth of fastidious organisms, when combined with suitable vegetable peptones.

## Quality Control :

**Appearance of powder**

Light yellow to yellow may have slight green tinge, homogeneous free flowing powder, having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution remains clear without haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Yersinia Isolation HiVeg™ Agar (MV564) using HiVeg™ Extract No.1 as an ingredient.

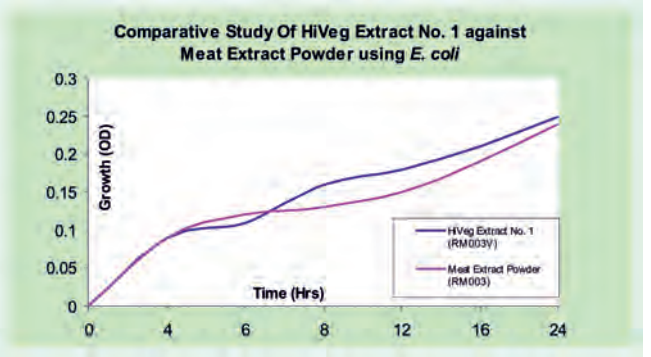
| Organism | Growth |
|---|---|
| *Escherichia coli* ATCC 25922 | none-poor |
| *Proteus mirabilis* ATCC 25933 | fair-good |
| *Salmonella* Typhimurium ATCC 14028 | fair-good |
| *Shigella flexneri* ATCC 12022 | none-poor |
| *Yersinia enterocolitica* ATCC 27729 | good-luxuriant |

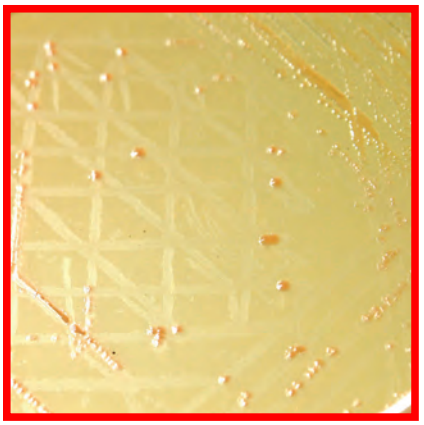
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 11.50% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 4.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 9.50% |

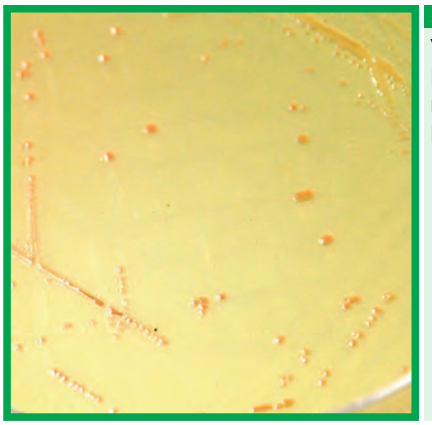
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



Yersinia Isolation Agar (M564) using **Meat Extract (RM003)** as an ingredient. *Y. enterocolitica* (ATCC 27729)



Yersinia Isolation HiVeg™ Agar (MV564) using **HiVeg™ Extract No.1** as an ingredient. *Y. enterocolitica* (ATCC 27729)

# HiVeg™ Extract No. 2 RM326V

It can be employed for cultivation of fastidious anaerobic bacteria such as Brucellae and Clostridia by adding to Thioglycollate HiVeg™ media (MV009/ MV010). It can also be incorporated in Blood Agar Base No. 2, HiVeg™ (MV834) and for cultivation of a wide variety of pathogenic microorganisms and for bulk production of vaccines, steroids, enzymes, etc.

## Principle and Interpretation :

HiVeg™ Extract No. 2 is a specially prepared dehydrated extract of vegetable proteins. Growth response of this vegetable extract is comparable to Liver Extract powder (RM326).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2%w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Blood Agar Base No. 2, HiVeg™ (MV834) using Veg Extract No. 2 as an ingredient.

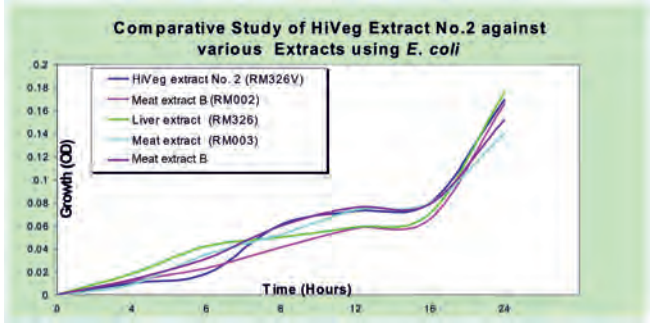
| Organism | Growth | Haemolysis |
|---|---|---|
| *Neisseria meningitidis* ATCC 13090 | Good-luxuriant | None |
| *Staphylococcus aureus* ATCC 25923 | Good-luxuriant | Beta |
| *Streptococcus pneumoniae* ATCC 6303 | Good-luxuriant | Alpha |
| *Streptococcus pyogenes* ATCC 19615 | Good-luxuriant | Beta |

**Chemical Analysis**

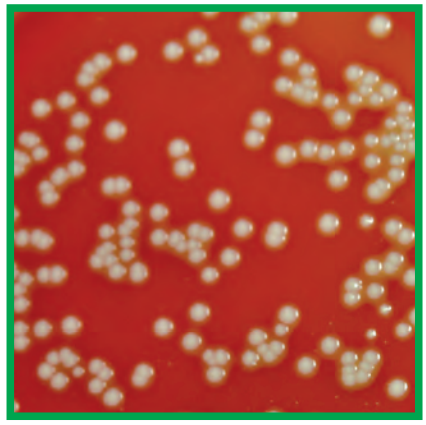
| | |
|---|---|
| Total Nitrogen | >= 10.0% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 4.20% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 11.50% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.




Blood Agar Base No. 2, (M834) where **Peptone (RM001)** is used as an ingredient *Staphylococcus aureus* (ATCC 25923)



Blood Agar Base No. 2, HiVeg™ (MV834) where **HiVeg™ Peptone (RM001V)** is used as an ingredient. *Staphylococcus aureus* (ATCC 25923)

# HiVeg™ Hydrolysate RM014V

Recommended for the cultivation of a wide variety of organisms for indole production and fermentation studies.

## Principle and Interpretation :

HiVeg™ Hydrolysate is prepared by enzymic hydrolysis of vegetable proteins to suit cultural response comparable with Casein enzymic Hydrolysate Type I (Milk Protein) (Tryptone Type I) (RM014).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

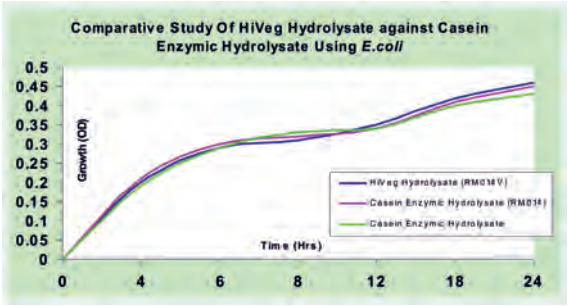
Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing HiVeg™ Soyabeen Casein Digest Medium (MV011), using HiVeg™ Hydrolysate as an ingredient.

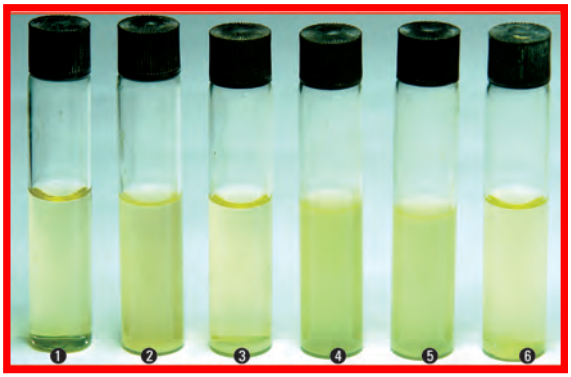
| Organism | Growth |
|---|---|
| *Escherichia coli* ATCC 25922 | Characteristic, luxuriant growth |
| *Pseudomonas aeruginosa* ATCC 27853 | Characteristic, luxuriant growth |
| *Enterobacter aerogenes* ATCC 13048 | Characteristic, luxuriant growth |
| *Salmonella* Typhi ATCC 6539 | Characteristic, luxuriant growth |
| *Staphylococcus aureus* ATCC 25923 | Characteristic, luxuriant growth |
| *Streptomyces albus* ATCC 3004 | Characteristic, luxuriant growth |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant w/ beta haemolysis (with addition of sterile 5% sheep blood in above medium after 48 hours of incubation at 35-37°C). |
| *Neisseria gonorrhoeae* ATCC 19424 | Luxuriant w/ beta haemolysis (with addition of sterile 10% sheep blood to above medium heated to 80 to 90°C until blood has turned to chocolate brown and incubated in 10% $CO_2$ atmosphere after 48 hours of incubation at 35-37°C). |

| Chemical Analysis | |
|---|---|
| Total Nitrogen | >= 11.0% |
| Amino Nitrogen | >= 3.0% |
| Sodium chloride | <= 4.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 10.0% |

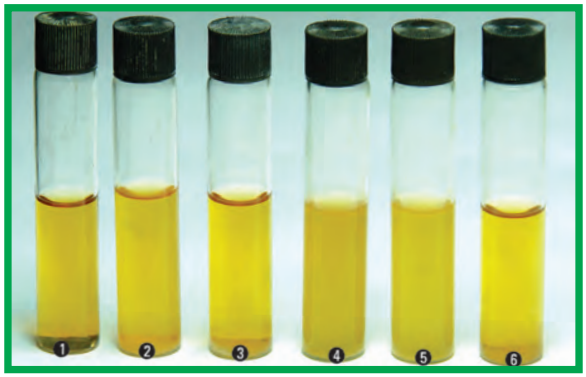
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.




Soyabean Casein Digest Medium (M011) where **Casein Enzymic Hydrolysate (RM014)** is used as an ingredient.
1. Control 2. *S. aureus* (ATCC 25923) 3. *S. pyogenes* (ATCC 19615)
4. *N. meningitidis* (ATCC 13090) 5. *B. vulgatus* (ATCC 8482)
6 *C. albicans* (ATCC 10231)




Soyabean HiVeg™ Medium (MV011) prepared by using **HiVeg™ Hydrolysate (RM014V)** as an ingredient.
1. Control 2. *S. aureus* (ATCC 25923) 3. *S. pyogenes* (ATCC 19615)
4. *N. meningitidis* (ATCC 13090) 5. *B. vulgatus* (ATCC 8482)
6 *C. albicans* (ATCC 10231)

# HiVeg™ Hydrolysate No. 1 RM030V

It can be used in following media: Tryptose Media : for cultivation of fastidious microorganisms and for preparing Blood Agars, HiVeg™ (MV073/MV834). HiVeg™ hydrolysate No. 1 aids in maintaining blood cells in excellent state, thus haemolytic reactions can be easily demonstrated.Vaccine Preparation Media : for rapid and luxuriant growth as desired for large scale manufacturing of vaccines and toxins.

## Principle and Interpretation :

HiVeg™ Hydrolysate No. 1 is specially prepared enzymic hydrolysate of vegetable proteins that can successfully replace Tryptose (RM030).

## Quality Control :

**Appearance of powder**

Light yellow to yellow,may have slightly green tinge, homogeneous free flowing powder, having characteristic but not putrescent odour.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

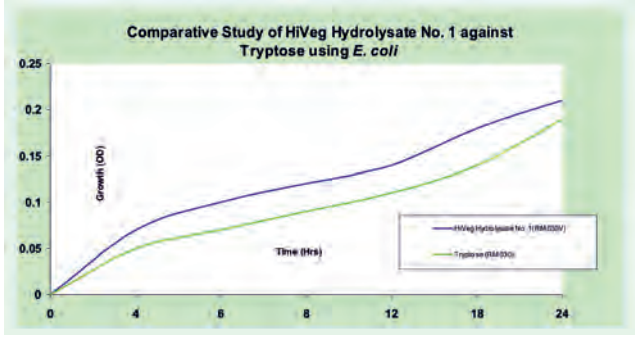
## Cultural Response

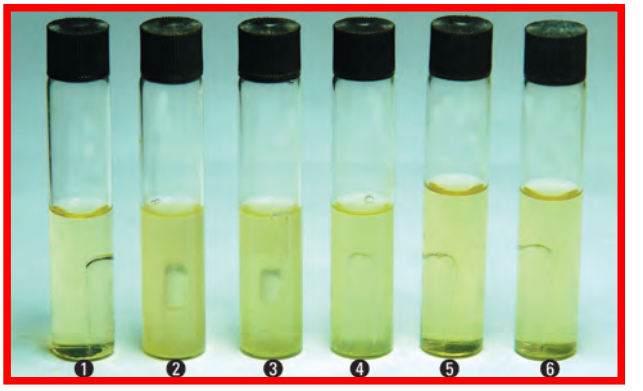
Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Lauryl Tryptose HiVeg™ Broth (MV080) using HiVeg™ Hydrolysate No. 1 as an ingredient.

| Organism | Growth | Gas |
|---|---|---|
| *Enterobacter aerogenes* ATCC 13048 | Luxuriant | Gas production Positive |
| *Escherichia coli* ATCC 25922 | Luxuriant | Gas production Positive |
| *Staphylococcus aureus* ATCC 25923 | Inhibited | - |
| *Enterococcus faecalis* ATCC 29212 | Inhibited | - |
| *S.Typhimurium* ATCC 14028 | Luxuriant | Gas production Negative |
| **Chemical Analysis** | | |
| Total Nitrogen | >= 10.0% | |
| Amino Nitrogen | >= 3.0% | |
| Sodium chloride | <= 4.50% | |
| Loss on drying | <= 7.0% | |
| Residue on ignition | <= 10.0% | |

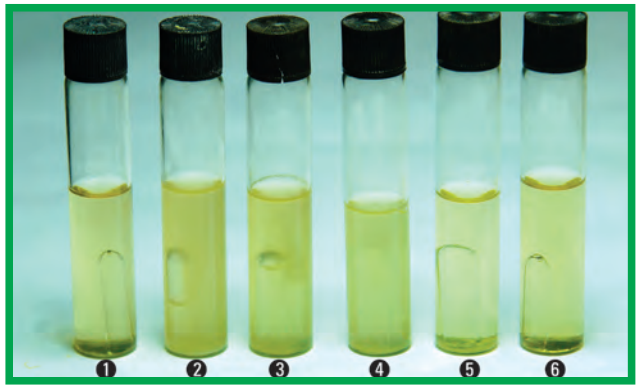
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



Lauryl Tryptose Broth (M080) containing **Tryptose (RM030)** as a constituent.
1. Control 4. *S.* Typhimurium (ATCC 14028)
2. *E. coli* (ATCC 25922) 5. *S. aureus* (ATCC 25923)
3. *E. aerogenes* (ATCC 13048) 6. *E. faecalis* (ATCC 29212)



Lauryl Tryptose HiVeg™ Broth (MV080) prepared by using **HiVeg™ Hydrolysate No. 1 (RM030V)** as a constituent.
1. Control 4. *S. Typhimurium* (ATCC 14028) 2. *E. coli* (ATCC 25922)
5. *S. aureus* (ATCC 25923) 3. *E. aerogenes* (ATCC 13048)
6. *E. faecalis* (ATCC 29212)

# HiVeg™ Hydrolysate No. 2 RM023V

Growth performace at par with liver hydrolysate an ideal ingredent of culture media used for culture of fastidious bacteria.

## Principle and Interpretation :

HiVeg™ Hydrolysate No. 2 is an enzymic digest of vegetable proteins and contains highly nutritive ingredients required for cultivation of nutritionally demanding microorganisms. Growth response of this hydrolysate is comparable with Liver Hydrolysate (RM023). It can also be recommended for large scale cultivation of these bacteria for the purpose of vaccine production.

## Quality Control :

**Appearance of powder**

Light yellow to yellow may have slight green tinge, homogeneous free flowing powder, having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species Negative in 10 gms of sample
3. *Pseudomonas aeruginosa* Negative in 10 gms of sample
4. *Staphylococcus aureus* Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Liver Infusion HiVeg™ Agar (MV374) using HiVeg™ Hydrolysate No. 2 as an ingredient.

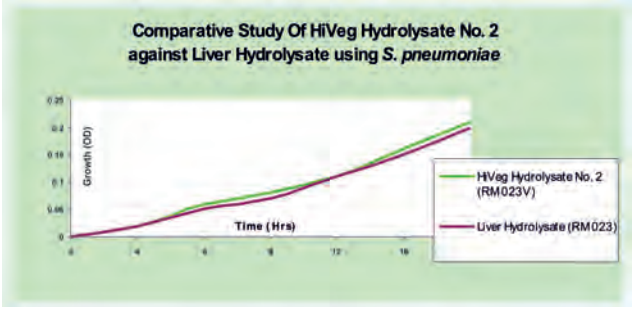
| Organism | Growth |
|---|---|
| *Brucella melitensis* ATCC 4309 | Luxuriant |
| *Brucella suis* ATCC 6597 | Luxuriant |
| *Streptococcus mitis* ATCC 9895 | Luxuriant |
| *Clostridium sporogenes* ATCC 11437 | Luxuriant |

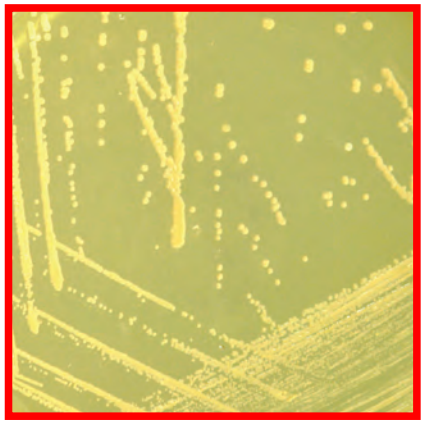
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 11.0% |
| Amino Nitrogen | >= 3.80% |
| Sodium chloride | <= 4.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 11.0% |

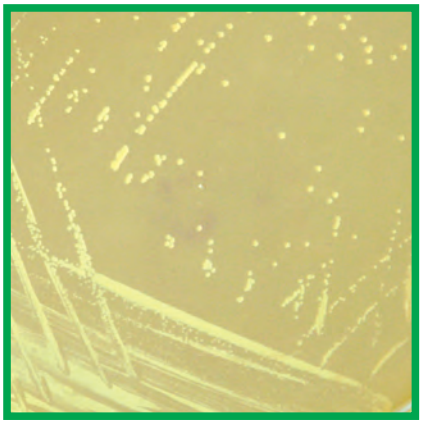
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



Liver Infusion Agar (M374) where **Liver Hydrolysate (RM023)** is used as an ingredient. *S. pneumoniae* (ATCC 6303)



Liver Infusion Agar, HiVeg™ (MV374) prepared by using **HiVeg™ Hydrolysate No. 2 (RM023V)** as an ingredient. *S. pneumoniae* (ATCC 6303)

# HiVeg™ Hydrolysate No. 3 RM275V

The product can be used on its own or in conjunction with other ingredients in media for isolation of lactobacilli and bacteriological examination of dairy products.

## Principle and Interpretation :

It is an enzymic digest of vegetable proteins. It has high tryptophan content and is therefore used in media for testing the indole reaction. It serves as a source of nitrogen and also has high level of carbohydrate. Growth performance at par with Peptonized milk, (RM275) suitable for Lactobacilli, yeasts and moulds.

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. C.*albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Universal Beer HiVeg™ Agar (MV415) using HiVeg™ Hydrolysate No. 3 as an ingredient.

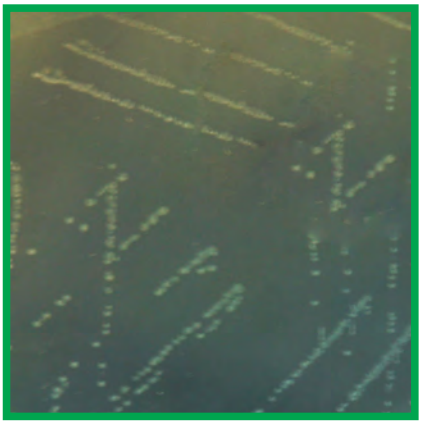
| Organism | Growth |
|---|---|
| *Acinetobacter calcoaceticus* ATCC 23055 | Good-luxuriant |
| *Lactobacillus acidophilus* ATCC 4356 | Good-luxuriant |
| *Lactobacillus fermentum* ATCC 9338 | Good-luxuriant |
| *Proteus vulgaris* ATCC 13315 | Fair-good |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 6.0% |
| Amino Nitrogen | >= 1.50% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 6.0% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



Universal Beer HiVeg™ Agar (MV415) using **HiVeg™ Hydrolysate No. 3 (RM275V)** as an ingredient. *Lactobacillus acidophilus* (ATCC 4356)

# HiVeg™ Hydrolysate No. 4 RM012V

It is rich in amino acids and can be successfully used to supplement microbial culture media and can be used as a substrate for many microorganisms including Lactobacilli, for sporulation of Clostridia and fermentation procedures.

## Principle and Interpretation :

HiVeg™ Hydrolysate No. 4 is prepared under controlled condition from vegetable proteins that can successfully replace Lactalbumin Hydrolysate (RM012).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have slight green tinge, homogeneous free flowing powder, having characteristic odour.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol, chloroform.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after an incubation at 35-37°C for 16-24 hours by preparing M-PH HiVeg™ Agar (MV261)using HiVeg™ Hydrolysate No. 4 as an ingredient.

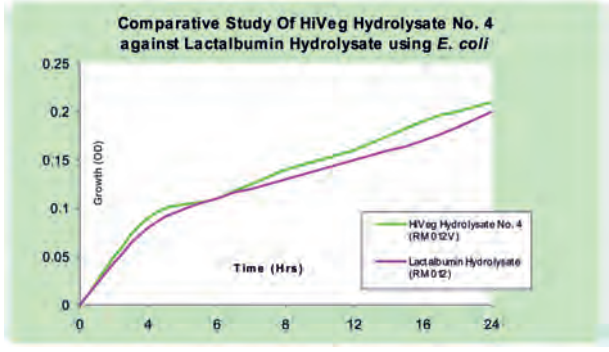
| Organism | Growth |
|---|---|
| *Bacillus subtilis* ATCC 6633 | Luxuriant |
| *Enterococcus faecalis* ATCC 29212 | Luxuriant |
| *Escherichia coli* ATCC 25922 | Luxuriant |
| *Lactobacillus casei* ATCC 9595 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant |

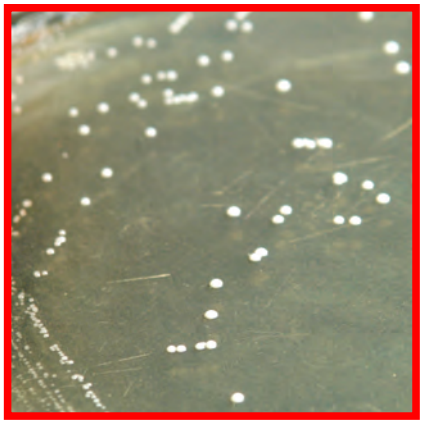
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 8.0% |
| Amino Nitrogen | >= 3.0% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 15% |

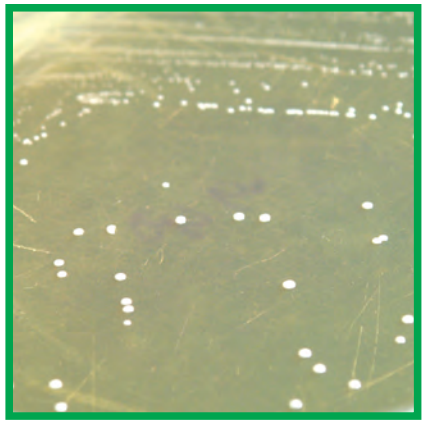
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



M-PH Agar (M261) using **Lactalbumin hydrolysate (RM012)** as an ingredient. *Lact. casei* (ATCC 9595)



M-PH HiVeg™ Agar (MV261) using **HiVeg™ Hydrolysate No. 4 (RM012V)** as an ingredient. *Lact. casei* (ATCC 9595)

# HiVeg™ Hydrolysate No. 6 RM028V

The product can be used with other ingredients in Antibiotic assay media.

## Principle and Interpretation :

HiVeg™ Hydrolysate No. 6 is produced by enzymic hydrolysis of vegetable proteins and can successfully replace Casein enzymic hydrolysate, Type II (RM028). It serves as a rich source of amino nitrogen and utilized in Antibiotic assay meida.

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. C.*albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing HiVeg™ Soyabeen Casein Digest Medium (MV011), using HiVeg™ Hydrolysate No. 6 as an ingredient.

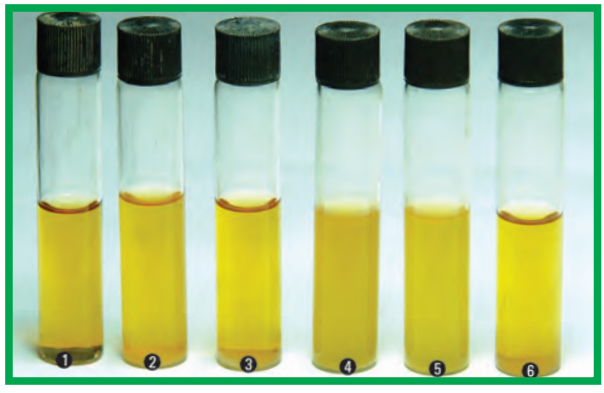
| Organism | Growth |
|---|---|
| *Bacillus subtilis* ATCC 6633 | characteristic, luxuriant growth |
| *Bacillus vulgatus* ATCC 8482 | characteristic, luxuriant growth |
| *Candida albicans* ATCC 10231 | characteristic, luxuriant growth |
| *Staphylococcus aureus* ATCC 25923 | characteristic, luxuriant growth |
| *Streptomyces albus* ATCC 3004 | characteristic, luxuriant growth |
| *Streptococcus pyogenes* ATCC 19615 | luxuriant w/ beta haemolysis (with addition of sterile 5% sheep blood in above medium after 48 hours of incubation at 35-37°C). |
| *Neisseria meningitidis* ATCC 13090 | luxuriant w/ beta haemolysis (with addition of sterile 10% sheep blood to above medium heated to 80 to 90°C until blood has turned to chocolate brown and incubated in 10% CO2 atmosphere after 48 hours of incubation at 35-37°C). |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 12.0% |
| Amino Nitrogen | >= 3.0% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 10% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.




HiVeg™ Soyabeen Casein Digest Medium (MV011) using **HiVeg™ Hydrolysate No. 6 (RM028V)** as an ingredient.
1. Control 2. *S. aureus* (ATCC 25923) 3. *S. pyogenes* (ATCC 19615)
4. *N. meningitidis* (ATCC 13090) 5. *B. vulgatus* (ATCC 8482)
6 *C. albicans* (ATCC 10231)



HIMEDIA®

# HiVeg™ Acid Hydrolysate RM013V

It is used in antibiotic sensitivity test media, vaccine preparation media,fermentation etc.

## Principle and Interpretation :

HiVeg™ Acid Hydrolysate is an acid hydrolysate of vegetable proteins suitable for use in culture media requiring amino acid mixture. Its growth promotional characteristics match with Casein Acid Hydrolysate (RM013).

## Quality Control :

**Appearance of powder**

Cream to brownish yellow, may have slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol.

**Reaction**

Reaction of 1% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after an incubation at 35-37°C for 18-48 hours by preparing Mueller Hinton Agar (M173) using HiVeg™ Acid Hydrolysate as an ingredient.

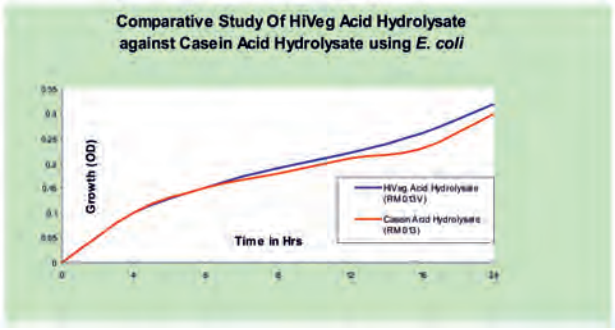
| Organism | Growth |
|---|---|
| *Escherichia coli* ATCC 25922 | Luxuriant |
| *Haemophilus influenzae* ATCC 49247 | Good-luxuriant (on Mueller Hinton Chocolate Agar) |
| *Neisseria gonorrhoeae* ATCC 49226 | Luxuriant |
| *Pseudomonas aeruginosa* ATCC 27853 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Enterococcus faecalis* ATCC 29212 | Luxuriant |
| *Streptococcus pneumoniae* ATCC 6305 | Luxuriant (on Mueller Hinton Blood Agar) |

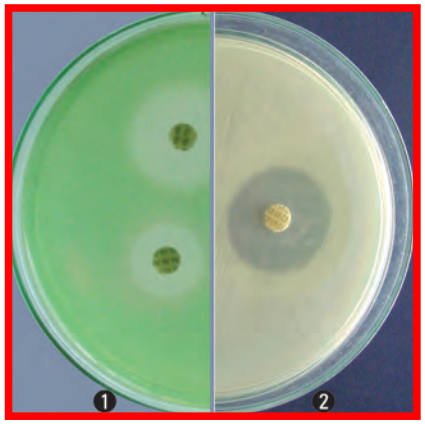
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 6.0% |
| Amino Nitrogen | >= 3.0% |
| Loss on drying | <= 5.0% |
| Residue on ignition | <= 44% |

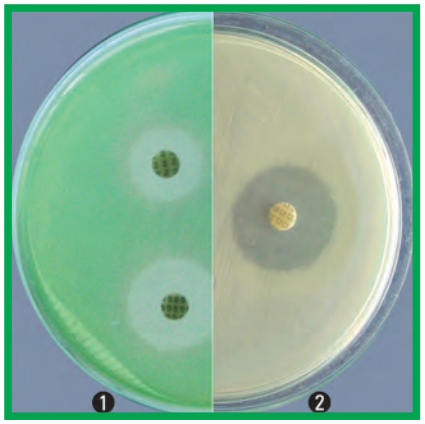
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.




Mueller Hinton Agar (M173) containing **Casein Acid Hydrolysate (RM013)** as an ingredient.
1. *P. aeruginosa* (ATCC 27853)
2. *S. aureus* (ATCC 25923)




Mueller Hinton HiVeg™ Agar (MV173) where **HiVeg™ Acid Hydrolysate (RM013V)** is used as an ingredient.
1. *P. aeruginosa* (ATCC 27853)
2. *S. aureus* (ATCC 25923)

# HiVeg™ Acid Hydrolysate No.1 RM498V

It can be employed for cultivation of fastidious anaerobic bacteria for production of pertussis vaccine.

## Principle and Interpretation :

HiVeg™ Acid Hydrolysate No.1 is an acid hydrolysate of vegetable proteins rich in amino acids.It is an excellent source for production of pertussis vaccine.Growth performance of HiVeg™ Acid Hydrolysate No.1 at par Casein Acid Hydrolysate (RM498).

## Quality Control :

**Appearance of powder**

Cream to brownish yellow, may have slight green tinge, homogeneous free flowing powder characteristic odour of protein derived from vegetable source.

**Solubility**

Freely soluble in distilled water, insoluble in alcohol and ether.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50 - 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Absent

**Thymine / Thymidine content**

Following discs were tested for standard ATCC strains and zone of inhibition were measured after an incubation 35-37°C for 18 hours. (As per CLSI Protocol M6-A2 & Standards as per CLSI M100-S19)

| | |
|---|---|
| **Escherichia coli ATCC 25922** | |
| Co-Trimoxazole COT 25mcg (SD010) | 23mm- 29mm |
| **Staphylococcus aureus ATCC 25923** | |
| Co-Trimoxazole COT 25mcg (SD010) | 24mm- 32mm |
| **Enterococcus faecalis ATCC 29212** | |
| Co-Trimoxazole COT 25mcg (SD010) | >= 20mm |
| Trimethoprim TR 5mcg (SD039) | >= 20mm |
| **Staphylococcus aureus ATCC 43300** | |
| Oxacillin OX 1mcg (SD088) | No zone or very hazy zone |

**Divalent cation content**

Following discs were tested for standard ATCC strains and zone of inhibition were measured after an incubation 35-37°C for 18 hours. (As per CLSI Protocol M6-A2 & Standards as per CLSI M100-S19)

| | |
|---|---|
| **Staphylococcus aureus ATCC 25923** | |
| Tetracycline TE 30mcg (SD037) | 24mm- 30mm |
| **Escherichia coli ATCC 25922** | |
| Tetracycline TE 30mcg (SD037) | 18mm- 25mm |
| **Pseudomonas aeruginosa ATCC 27853** | |
| Amikacin AK 30mcg (SD035) | 18mm- 26mm |
| Gentamicin GEN 10mcg (SD016) | 16mm-21mm |
| Tobramycin TOB 10mcg (SD044) | 19mm-25mm |

## Cultural Response

Cultural response observed after an incubation at 35-37°C for 18-48 hours by preparing Mueller Hinton HiVeg™ Agar (MV173) using HiVeg™ Acid Hydrolysate No.1 as an ingredient.

| Organism | Growth |
|---|---|
| *Escherichia coli* ATCC 25922 | Luxuriant |
| *Haemophilus influenzae* ATCC 49247 | Good-luxuriant (on Mueller Hinton Chocolate Agar) |
| *Neisseria gonorrhoeae* ATCC 49226 | Luxuriant |
| *Pseudomonas aeruginosa* ATCC 27853 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Enterococcus faecalis* ATCC 29212 | Luxuriant |
| *Streptococcus pneumoniae* ATCC 6305 | Luxuriant (on Mueller Hinton Blood Agar) |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 10.0% |
| Sodium chloride | <=18.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 20.0% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.

# HiVeg™ Infusion No. 1 RM022V

It can be employed for cultivation of fastidious anaerobic bacteria like Brucella, Streptococcus species. It can be used for bulk production of vaccines.

## Principle and Interpretation :

HiVeg™ Infusion No. 1 is a dried infusion of vegetable origin. It is processed under controlled conditions to retain all nutritive values. Growth response of this vegetable infusion is comparable to Liver infusion powder (RM022).

## Quality Control :

**Appearance of powder**

Light yellow to yellow may have slight green tinge, homogeneous free flowing powder, having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after an incubation at 35-37°C for 24-48 hours by preparing Liver Infusion HiVeg™ Agar (MV374) using HiVeg™ Infusion No.1, as an ingredient.

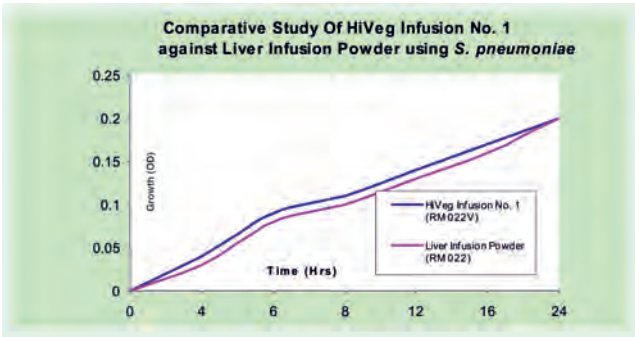
| Organism | Growth |
|---|---|
| *Brucella melitensis* ATCC 4309 | Luxuriant |
| *Brucella suis* ATCC 6597 | Luxuriant |
| *Streptococcus mitis* ATCC 9895 | Luxuriant |
| *Clostridium sporogenes* ATCC 11437 | Luxuriant |

**Chemical Analysis**

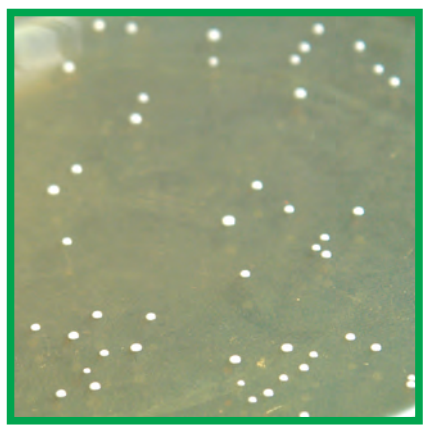
| | |
|---|---|
| Total Nitrogen | >= 11.0% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 6.0% |
| Residue on ignition | <= 12.50% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.




Liver infusion Agar, (M374) to test growth promotion, using **Liver Infusion Powder (RM022)** as an ingredient *S. pneumoniae* (ATCC 6303)



Liver infusion Agar, HiVeg™ (MV374) to test growth promotion, using **HiVeg™ Infusion No.1 (RM022V)** as an ingredient *S. pneumoniae* (ATCC 6303)

# HiVeg™ Infusion No. 2 RM192V

It can be used as an ingredient in various nutrient media and additive in vaccine preparation.

## Principle and Interpretation :

HiVeg™ Infusion No. 2 is veg infusion recommended for use in place of Meat Infusion powder. It is highly nutritious ingredient which can be used for cultivation of wide variety of microorganisms. It can be used in standard nutrient media and as an additive in vaccine preparation in place of Meat Infusion powder (RM192).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight greenish tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Nutrient HiVeg™ Agar (MV001), using HiVeg™ Infusion No.2 as an ingredient.

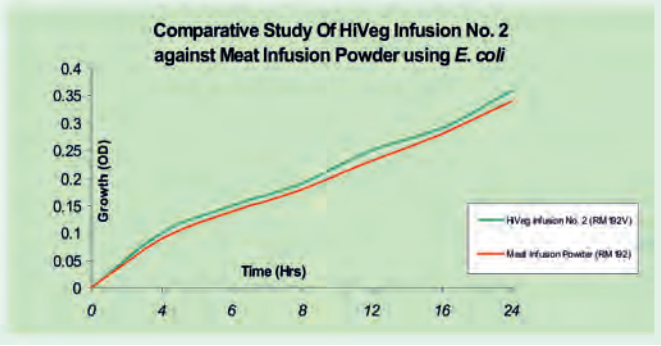
| Organism | Growth |
|---|---|
| *Escherichia coli* ATCC 25922 | Luxuriant |
| *Pseudomonas aeruginosa* ATCC 27853 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Salmonella Typhi* ATCC 6539 | Luxuriant |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant |

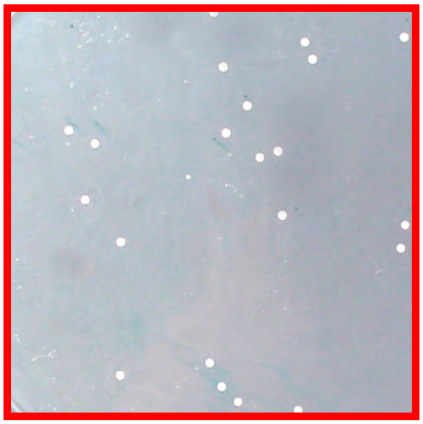
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 11.0% |
| Amino Nitrogen | >= 3.80% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 20.0% |

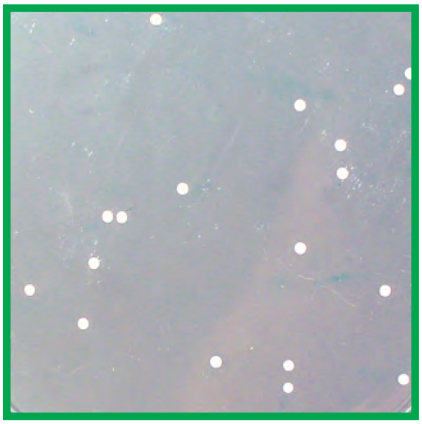
## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



Nutrient Agar (M001) where **Meat Infusion Powder (RM192)** was used as an ingredient. *S. aureus* (ATCC 25923)



Nutrient HiVeg™ Agar (MV001) where **HiVeg™ Infusion No. 2 (RM192V)** was used as an ingredient. *S. aureus* (ATCC 25923)



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# HiVeg™ Infusion RM191V

It can be used in media employed for cultivation of fastidious organisms like Brucella, Mycoplasma, Pneumococci, Gonococci, Meningococci, Actinomycetes, fungi, etc. and antibiotic sensitivity test. It can also be used in large scale cultivation of microorganisms for the preparation of vaccines and for preparation of Blood Agar Bases, HiVeg™ (MV073, MV834) .

## Principle and Interpretation :

HiVeg™ Infusion is dehydrated infusion obtained from vegetable proteins under controlled conditions. Growth supporting properties of this infusion is comparable with Heart Infusion Powder (RM191).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol and ether.

**Clarity**

1% w/v aqueous solution remains clear without haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response was observed an incubation at 35-37°C for 18 - 48 hours on Heart Infusion Agar, HiVeg™ (MV169)using HiVeg™ infusion powder as an ingredient.

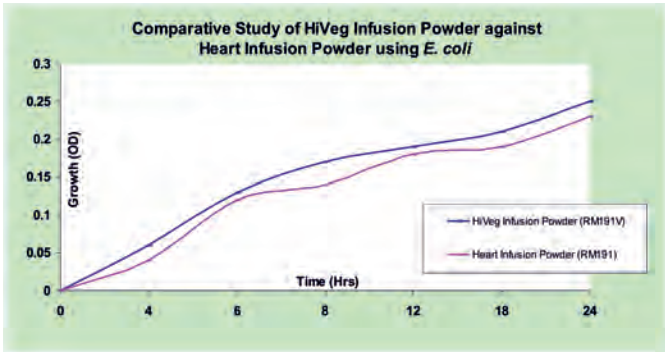
| Organism | Growth w/o blood | Growth with 5% blood | Haemolysis |
|---|---|---|---|
| *Staphylococcus aureus* ATCC 25923 | good-luxuriant | luxuriant | Beta |
| *Neisseria meningitidis* ATCC13090 | good-luxuriant | luxuriant | None |
| *Streptococcus pneumoniae* ATCC 6303 | good-luxuriant | luxuriant | Alpha |
| *Streptococcus pyogenes* ATCC 19615 | good-luxuriant | luxuriant | Beta |

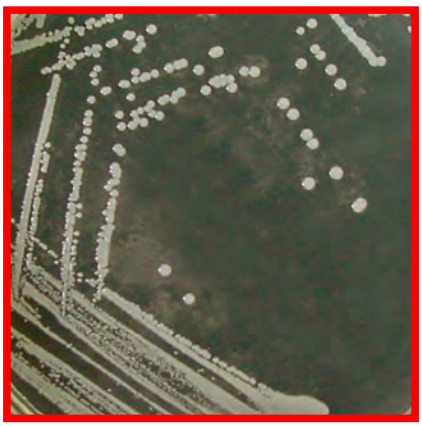
**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 11.0% |
| Amino Nitrogen | >= 3.80% |
| Sodium chloride | <= 3.50% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 11.0% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



Heart Infusion Agar (M169) containing **Heart Infusion (RM191)** as an ingredient.
*S. pyogenes* (ATCC 19615)

Heart Infusion Agar, HiVeg™ (MV169) prepared by using **HiVeg™ Infusion Powder (RM191V)** as an ingredient.
*S. pyogenes* (ATCC 19615)

# HiVeg™ Peptone B RM6392V

It is refined product rich in proteoses, peptides and free amino acids. It provides superior nutrition for fastidious organisms including pyogenic cocci.

## Principle and Interpretation :

HiVeg™ Peptone B is manufactured under controlled conditions from vegetable proteins. It is rich in free amino acids. Growth Performance is comparable with Proteose Peptone B (RM6392).

## Quality Control :

**Appearance of powder**

Light yellow to yellow coloured,may have a slight green tinge, homogeneous free flowing powder,having characteristic odour but not putrescent.

**Solubility**

Soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. Salmonella species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after an incubation at 35-37°C for 18-24 hours on Proteose HiVeg™ Agar (MV1176) using HiVeg™ Peptone B as an ingredient.

| Organism | Growth |
|---|---|
| *Vibrio cholerae (15748)* | *Luxuriant* |
| *Vibrio parahaemolyticus(11344)* | *Luxuriant* |

**Chemical Analysis**

| | |
|---|---|
| TotalNitrogen | >= 11.0% |
| AminoNitrogen | >= 3.50% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 12.0% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.

# HiVeg™ Proteose Peptone A RM6394V

Recommended for cultivation of fastidious pathogens and particularly for bulk production of antibiotics, enzymes, veterinary preparations and bacterial toxins, specially diphtheria toxins.

## Principle and Interpretation :

Proteose Peptone A, HiVeg™ is manufactured under controlled conditions from vegetable sources. It provides nitrogen in readily available form as it is rich in proteoses, peptide and free amino acids which supports luxuriant growth of bacteria. Growth performance is comparable with Proteose Peptone A (RM6394).

## Quality Control :

**Appearance of powder**

Light yellow to yellow with slight green tinge, homogeneous free flowing powder, having characteristic odour but not putrescent.

**Solubility**

Soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Proteose HiVeg™ Agar (MV1176), using Proteose Peptone A, HiVeg™ as an ingredient.

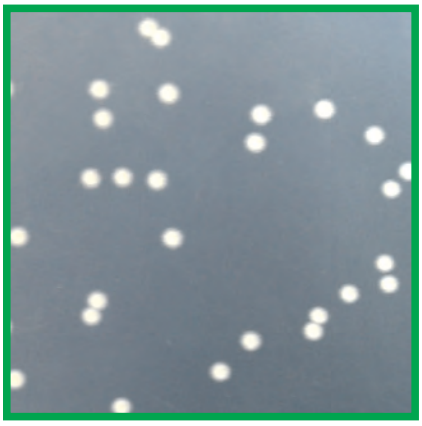
| Organism | Growth |
|---|---|
| *Vibrio cholerae* ATCC 15748 | Luxuriant |
| *Vibrio parahaemolyticus* ATCC 11344 | Luxuriant |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 11.0% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 6.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 20.0% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.



Proteose HiVeg™ Agar (MV1176) using **HiVeg™ Proteose Peptone A (RM6394V)** as an ingredient. *Vibrio cholerae* (ATCC 15748)

# HiVeg™ Special Infusion RM188V

Being highly nutritious it is employed in number of media for cultivation of highly fastidious microorganisms such as in Brain Heart Infusion Agar HiVeg™ /Broth HiVeg™ (MV211/MV210), Brain Heart CC Agar, HiVeg™ (MV209), SABHI HiVeg™ Agar Base(MV409), etc. to grow Staphylococci, Streptococci, Haemophilus and Neisseria species and pathogenic fungi.

## Principle and Interpretation :

HiVeg™ Special Infusion is dehydrated infusion obtained from vegetable proteins under controlled conditions. It is highly nutritious and has growth supporting properties comparable with Brain Heart Infusion Powder (RM188).

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing Brain Heart Infusion Agar, HiVeg™ (MV211) using HiVeg™ Special Infusion as an ingredient.

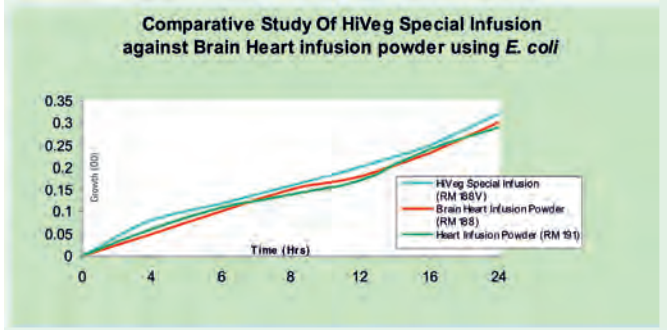
| Organism | Growth |
|---|---|
| *Candida albicans* ATCC 26790 | Luxuriant |
| *Escherichia coli* ATCC 25922 | Luxuriant |
| *Shigella flexneri* ATCC 12022 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Streptococcus pneumoniae* ATCC 6303 | Luxuriant |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 11.0% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 12% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.




Brain Heart Infusion Agar (M211) where **Brain Heart Infusion (RM188)** is used as an ingredient.

*C. albicans* (ATCC 26790)

Brain Heart Infusion Agar, HiVeg™ (MV211) prepared by using **HiVeg™ Special Infusion (RM188V)** as an ingredient.

*C. albicans* (ATCC 26790)



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# HiVeg™ Pea Hydrolysate RM9149

It can be used as nitrogen source in various microbiological media.

## Principle and Interpretation :

HiVeg™ Pea Hydrolysate is manufactured under controlled conditions from pea protein. It has very rich source of organic nitrogen. Ideal for industrial fermentations and excellent source as veg peptone for microbiological media.

## Quality Control :

**Appearance of powder**

Off white to light yellow, homogeneous free flowing powder, having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol and ether.

**Clarity**

1% w/v aqueous solution remains clear without haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

5.50- 7.50

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35-37°C for 18 - 24 hours by preparing Plate Count HiVeg™ Agar (MV091) using HiVeg™ Pea hydrolysate,as an ingredient.

| Organism | Growth |
|---|---|
| *Bacillus subtilis* ATCC 6633 | Luxuriant |
| *Enterococcus faecalis* ATCC 29212 | Luxuriant |
| *Escherichia coli* ATCC 25922 | Luxuriant |
| *Lactobacillus casei* ATCC 9595 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 10.50% |
| Amino Nitrogen | >= 2.0% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 5.0% |
| Residue on ignition | <= 12.0% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.

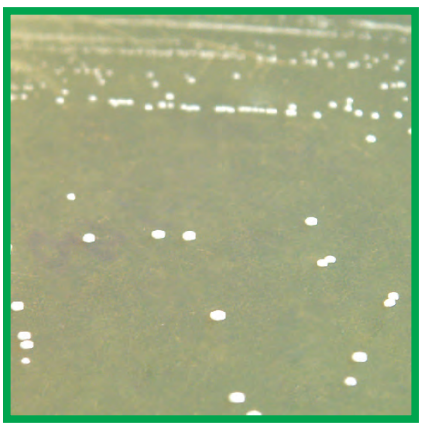


Plate Count HiVeg™ Agar (MV091) where **HiVeg™ Pea hydrolysate (RM9149)** is used as an ingredient. *Lactobacillus casei* (ATCC 9595)

# HiVeg™ Peptone F RM9150

It can be used in industrial fermentations specially supporting growth of *Actinomyces* species.

**Principle and Interpretation :**

HiVeg™ Peptone F is manufactured under controlled conditions from vegetable proteins which is rich in nutritional values which is almost equivalent to cotton seed extract.

**Quality Control :**

**Appearance of powder**

Off white to light yellow, homogeneous free flowing powder, having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol and ether.

**Clarity**

1% w/v aqueous solution remains clear without haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

6.00- 7.00

**Microbial Load:**

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole Test**

Tryptophan content: Passes

**Cultural Response**

Cultural response observed after incubation at 35-37°C for 18 - 24 hours by preparing Actinomyces HiVeg™ Agar (MV341) using HiVeg™ Peptone F,as an ingredient.

| Organism | Growth |
|---|---|
| **Actinomyces israelii* ATCC 10049 (Incubate anaerobically) | luxuriant |
| *Streptomyces achromogenes* ATCC 12767 | good |
| *Streptomyces albus subsp albus* ATCC 3004 | good |
| *Streptomyces lavendulae* ATCC 8664 | good |
| **Actinomyces bovis* ATCC 13683 | good |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 9.50% |
| Amino Nitrogen | >= 2.0% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 7.0% |
| Residue on ignition | <= 12.50% |

**Storage and Shelf Life :**

Store below 30°C. Use before expiry date on the label.

Actinomyces HiVeg™ Agar (MV341) where **HiVeg™ Peptone F (RM9150)** is used as an ingredient. *Streptomyces lavendulae* (ATCC 8664)

# Oat Meal Powder RM2565

It can be used for cultivation of fungi in microbiological culture media.

**Principle and Interpretation :**

Oat meal powder is obtained from oat grains and manufactured under controlled conditions.Oat meal powder provides nitrogen, carbon protein and other nutrients necessary for the growth of fungi. Hence it is used in media for cultivation of fungi.

**Quality Control :**

**Appearance of powder**

Brownish yellow, homogeneous powder, having characteristic but not putrescent odour.

**Solubility**

Insoluble in distilled/purified water, methanol, acetone and alcohol.

**Cultural Response**

Cultural characteristics observed after an incubation at 25-30°C for 18-48 hours by preparing Oat Meal agar (M397) using Oat Meal Powder as an ingredient.

| Organism | Growth |
|---|---|
| *Candida albicans* ATCC 10231 | Luxuriant |
| *Saccharomyces cerevisiae* ATCC 9763 | Luxuriant |
| *Aspergillus brasiliensis* ATCC 16404 | Luxuriant |

**Storage and Shelf Life :**

Store below 30°C. Use before expiry date on the label.

# Gluten Hydrolysate, Maize RM6406

## Principle and Interpretation :

Gluten Hydrolysate,Maize is a protein hydrolysate of gluten from maize (corn). An enzymatic digest of maize (corn) protein using non-animal enzymes of microbial or plant origin. As it is obtained from plant source it is free of TSE/BSE risks. Recommended for use in microbial media or as a fermentation nutrient.

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have slight green tinge, homogeneous, free flowing powder, having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled/purified water, insoluble in alcohol and ether.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

6.30- 7.30

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

## Cultural Response

Cultural response observed after incubation at 35 - 37°C for 18-48 hours by preparing HiVeg™ Soyabean Casein Digest Medium (MV011), using Gluten Hydrolysate, Maize as an ingredient.

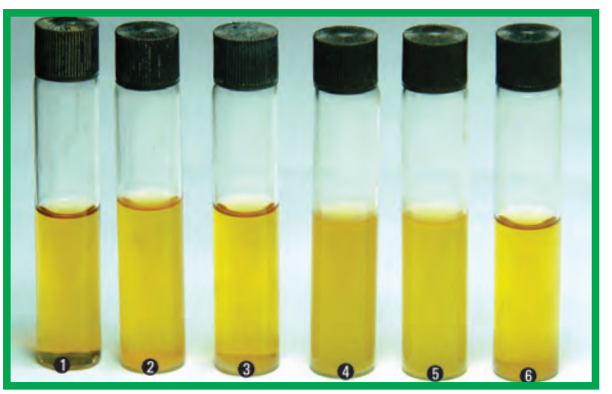
| Organism | Growth |
|---|---|
| *Escherichia coli* ATCC 25922 | Characteristic, luxuriant growth |
| *Pseudomonas aeruginosa* ATCC 27853 | Characteristic, luxuriant growth |
| *Enterobacter aerogenes* ATCC 13048 | Characteristic, luxuriant growth |
| *Salmonella* Typhi ATCC 6539 | Characteristic, luxuriant growth |
| *Staphylococcus aureus* ATCC 25923 | Characteristic, luxuriant growth |
| *Streptomyces albus* ATCC 3004 | Characteristic, luxuriant growth |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant w/ beta haemolysis (with addition of sterile 5% sheep blood in above medium after 48 hours of incubation at 35-37°C). |
| *Neisseria gonorrhoeae* ATCC 19424 | Luxuriant w/ beta haemolysis (with addition of sterile 10% sheep blood to above medium heated to 80 to 90°C until blood has turned to chocolate brown and incubated in 10% $CO_2$ atmosphere after 48 hours of incubation at 35-37°C). |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 9.0% |
| Amino Nitrogen | >= 2.30% |
| Loss on drying | <= 6.0% |
| Residue on ignition | <= 15.0% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.




HiVeg™ Soyabean Casein Digest Medium (MV011) **HiVeg™ Gluten hydrolysate,Maize (RM6406)** is used as an ingredient.
as an ingredient.
1. Control 2. *S. aureus* (ATCC 25923) 3. *S. pyogenes* (ATCC 19615)
4. *N. meningitidis* (ATCC 13090) 5. *B. vulgatus* (ATCC 8482)
6 *C. albicans* (ATCC 10231)

# Soya Peptone RM007

## Principle and Interpretation :

Soya Peptone is the soluble end product of the enzymic digestion of soyabean meal by papain.Because of the stimulatory properties associated with soya peptone, it is ideally recommended as a growth stimulant for the cultivation of fastidious microorganisms.

## Quality Control :

**Appearance of powder**

Light yellow to yellow, may have a slight green tinge, homogeneous free flowing powder, having characteristic odour of protein, derived from vegetable source.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in chloroform.

**Clarity**

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

6.00- 7.00

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

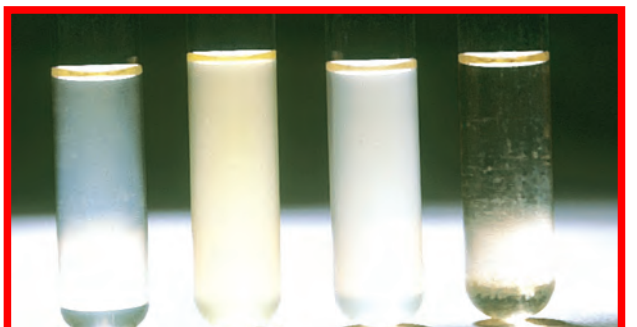
By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Nitrite test**

As per method specified in USP 35, Negative: No development of pink or red colour.



## Chemical Analysis

**Microbial Content**

As per method specified in USP 35, <=Total of 50 microorganisms or clumps in 10 consecutive fields.

**Bacteriological Testing**

Bacteriological tests carried out as per USP 35, where respective medium is prepared by using Soya peptone under test.

**Test for fermentable carbohydrate**

Medium: 2% Soya peptone w/phenol red broth w/durhams tube.After inoculation with test culture and incubation at 35-37°Cfor 24 hours. Acid production, (Positive test) No acid production, (Negative test)

**Production of acetyl methyl carbinol**

Medium :0.1% Soya peptone and 0.5% of dextrose in water. After inoculation with test culture and incubation at 35-37°C for 24 hours. Formation of pink colour (Positive test). No formation of pink colour (Negative test).

**Production of $H_2S$**

Medium: 1% Soya peptone in water. After inoculation with test culture and incubation at 35-37°C for 24 hours. The lead acetate test paper shows brownish blackening (lead sulphide)

**Production of Indole**

Medium: 0.1% Soya peptone in water. After inoculation with test culture and incubation at 35-37°C for 24 hours. Appearance of distinct pink to red colour ring (Positive test). No formation of pink to red coloured ring (Negative test).

## Cultural Response

Cultural response observed after incubation at 35-37°C for 24 hours by using 2% Soya peptone, 0.5% sodium chloride and 1.5% agar in water, pH 7.2-7.4

| Organism | Growth |
|---|---|
| *Escherichia coli* ATCC 25922 | Characteristic,luxuriant growth |
| *Pseudomonas aeruginosa* ATCC 27853 | Characteristic, luxuriant growth |
| *Enterobacter aerogenes* ATCC 13048 | Characteristic, luxuriant growth |
| *Salmonella* Typhi ATCC 6539 | Characteristic, luxuriant growth |
| *Staphylococcus aureus* ATCC 25923 | Characteristic, luxuriant growth |
| *Staphylococcus albus* ATCC 3004 | Characteristic, luxuriant growth |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant w/ beta haemolysis (With addition of sterile 5% sheep blood in above medium after 48 hours of incubation at 35-37°C) |
| *Neisseria gonorrhoeae* ATCC 19424 | Luxuriant w/beta haemolysis (With addition of sterile 10% sheep blood to above medium heated to 80 to 90°C until blood has turned to chocolate brown and incubated in 10% $CO_2$ atmosphere after 48 hours of incubation at 35-37°C). |

| Chemical Analysis | |
|---|---|
| TotalNitrogen | >= 9.0% |
| AminoNitrogen | >= 1.80% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 5.0% |
| Residue on ignition | <= 22% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.

# Yeast Autolysate RM194

It is rich in vitamins, especially those belonging to B complex and is often used to supply these factors in culture media at a concentration of 0.3 to 0.5%.It is especially used to supplement media employed for cultivation of Neisseriae.

## Principle and Interpretation :

Yeast Autolysate is prepared by drying the extract from autolysing yeast cells (Saccharomyces) specially cultivated for this purpose. It is rich in vitamins and other nutritive substances such as free amino acids.
It is a brownish yellow coloured, homogeneous, free flowing powder,that readily dissolves in distilled water. An aqueous solution of it is yellowish brown coloured and remains clear after autoclaving.

## Quality Control :

**Appearance of powder**
Light yellow to brownish yellow, homogeneous free flowing powder, having characteristic odour but not putrescent.
**Solubility**
Soluble in distilled/ purified water, insoluble in alcohol.
**Clarity**
1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.
**Reaction**
Reaction of 2% w/v aqueous solution at 25°C.
**pH**
6.00-7.00

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**
By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram
**Total Yeast and mould count (cfu/gm)**
By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram
**Test for Pathogens**
1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**
Tryptophan content: Passes

## Cultural Response

Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Plate Count Agar (M091) and Plate Count HiVeg™ Agar (MV091) using Yeast Autolysate as an ingredient.

| Organism | Growth |
|---|---|
| *Bacillus subtilis* ATCC 6633 | Luxuriant |
| *Enterococcus faecalis* ATCC 29212 | Luxuriant |
| *Escherichia coli* ATCC 25922 | Luxuriant |
| *Lactobacillus casei* ATCC 9595 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 11.50% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 5.0% |
| Residue on ignition | <= 15.0% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.

Plate Count HiVeg™ Agar (MV091) containing **Yeast Autolysate (RM194)** as an ingredient. *E. coli* (ATCC 25922)

# Yeast Extract Powder RM027

It is rich in vitamins especially those belonging to B complex and is often used to supply these factors in culture media at a concentration of 0.3% to 0.5%. It is particularly used in media for cultivation of microorganisms encountered in milk or other dairy products.Also used with Meat extract B or in place of Meat extract B.

## Principle and Interpretation :

Yeast Extract Powder is manufactured from selected strain of Saccharomyces under controlled condition by retaining ,all the nutritive values,amino acids, vitamins ,especially B groupe and growth factors.It contains low salt and is recommended for microbiological media and for mass cultivation of various microorganisms.

## Quality Control :

**Appearance of powder**

Light yellow to brownish yellow, homogeneous free flowing powder having characteristic odour but not putrescent.

**Solubility**

Freely soluble in distilled/ purified water, insoluble in alcohol.

**Clarity**

2% w/v aqueous solution remains clear and neutral without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Reaction**

Reaction of 2% w/v aqueous solution at 25°C.

**pH**

6.10- 7.10

## Microbial Load:

**Total aerobic microbial count (cfu/gm)**

By plate method when incubated at 30-35°C for not less than 3 days. Bacterial Count : <= 2000 CFU/gram

**Total Yeast and mould count (cfu/gm)**

By plate method when incubated at 20-25°C for not less than 5 days. Yeast & mould Count : <= 100 CFU/gram

**Test for Pathogens**

1. *E.coli*-Negative in 10 gms of sample
2. *Salmonella* species-Negative in 10 gms of sample
3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample
4. *Staphylococcus aureus*- Negative in 10 gms of sample
5. *C.albicans*- Negative in 10 gms of sample
6. *Clostridia*- Negative in 10 gms of sample

**Indole test**

Tryptophan content: Passes

**Test for coagulable protein**

As per method specified in USP 32,NF26.No formation of precipitate

## Cultural Response

Cultural response observed after incubation at 35-37°C for 18-24 hours by preparing Plate Count Agar (M091) and Plate Count HiVeg™ Agar (MV091) using Yeast extract powder as an ingredient.

| Organism | Growth |
|---|---|
| *Bacillus subtilis* ATCC 6633 | Luxuriant |
| *Enterococcus faecalis* ATCC 29212 | Luxuriant |
| *Escherichia coli* ATCC 25922 | Luxuriant |
| *Lactobacillus casei* ATCC 9595 | Luxuriant |
| *Staphylococcus aureus* ATCC 25923 | Luxuriant |
| *Streptococcus pyogenes* ATCC 19615 | Luxuriant |

**Chemical Analysis**

| | |
|---|---|
| Total Nitrogen | >= 9.50% |
| Amino Nitrogen | >= 3.50% |
| Sodium chloride | <= 5.0% |
| Loss on drying | <= 6.0% |
| Residue on ignition | <= 15% |

## Storage and Shelf Life :

Store below 30°C. Use before expiry date on the label.

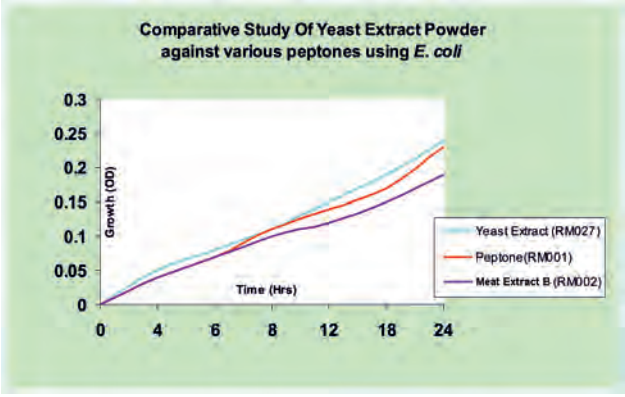



Plate Count HiVeg™ Agar (MV091) where **Yeast Extract Powder (RM027)** is used as an ingredient. *S. pyogenes* (ATCC 19615)

# HiMedia HiVeg™ Peptones - Typical Analysis

| Typical Analysis (% w/w) | HiVeg Peptone RM001V | HiVeg Extract RM002V | HiVeg Special Peptone RM015V | HiVeg Peptone No. 3 RM005V | HiVeg Peptone No. 1 RM635V | HiVeg Hydrolysate RM014V | HiVeg Hydrolysate No.4 RM012V | Soya Peptone RM007 | HiVeg Hydrolysate No. 1 RM030V | HiVeg Extract No. 1 RM003V | HiVeg Infusion RM191V | HiVeg Special Infusion RM188V | HiVeg Peptone No. 2 RM020V | HiVeg Extract No. 2 RM326V | HiVeg Hydrolysate No. 2 RM023V | HiVeg Peptone No. 4 RM006V | HiVeg peptone No.5 RM021V | HiVeg infusion No.2 RM192V | HiVeg Infusion No.1 RM022V | HiVeg acid hydrolysate RM013V | Yeast Autolysate RM194 | Yeast extract powder RM027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Nitrogen ≥ | 11.0 | 9.0 | 11.5 | 10.0 | 10.0 | 11.0 | 8.0 | 9.0 | 10.0 | 11.5 | 11.0 | 11.0 | 11.5 | 10.0 | 11.0 | 9.5 | 11.0 | 11.0 | 11.0 | 6.0 | 11.5 | 9.5 |
| α-Amino Nitrogen ≥ | 3.5 | 3.0 | 3.8 | 3.5 | 3.5 | 3.0 | 3.0 | 1.8 | 3.0 | 3.5 | 3.8 | 3.5 | 3.8 | 3.5 | 3.8 | 3.0 | 3.5 | 3.8 | 3.5 | 3.0 | 3.5 | 3.5 |
| Sodium chloride (NaCl) ≤ | 5.0 | 5.0 | 4.0 | 5.0 | 4.5 | 4.0 | 5.0 | 5.0 | 4.5 | 4.0 | 3.5 | 5.0 | 4.0 | 4.2 | 4.0 | 5.0 | 6.0 | 5.0 | 5.0 | -- | 5.0 | 5.0 |
| Loss on drying (Moisture) ≤ | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 5.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.0 | 5.0 | 5.0 | 6.0 |
| Residue on ignition (Ash) ≤ | 15.0 | 12.0 | 9.0 | 12.0 | 10.0 | 10.0 | 15.0 | 22.0 | 10.0 | 9.5 | 11.0 | 12.0 | 11.0 | 11.5 | 11.0 | 18.0 | 10.0 | 20.0 | 12.5 | 44.0 | 15.0 | 15.0 |
| pH at 25°C | 6.8 | 6.7 | 6.8 | 6.8 | 6.7 | 6.8 | 6.8 | 6.7 | 6.9 | 6.8 | 6.8 | 6.8 | 6.8 | 6.9 | 6.8 | 6.9 | 6.67 | 6.8 | 6.6 | 5.5 | 6.72 | 6.6 |
| Alanine | 3.07 | 3.73 | 2.96 | 2.10 | 2.75 | 2.42 | 2.66 | 2.65 | 3.53 | 2.91 | 2.78 | 3.13 | 2.9 | 2.96 | 2.42 | 3.10 | 3.15 | 3.70 | 3.65 | 2.11 | 4.99 | 5.36 |
| Arginine | 3.07 | 3.06 | 3.28 | 3.10 | 3.08 | 3.09 | 3.43 | 4.45 | 3.18 | 3.07 | 3.40 | 3.35 | 3.2 | 3.28 | 3.09 | 3.43 | 3.25 | 3.85 | 3.28 | 2.15 | 3.56 | 3.02 |
| Aspartic Acid | 4.03 | 4.79 | 4.93 | 2.90 | 3.65 | 3.27 | 3.51 | 7.15 | 4.33 | 3.84 | 4.50 | 4.65 | 4.9 | 4.93 | 4.20 | 3.27 | 4.98 | 3.51 | 4.55 | 4.21 | 7.44 | 6.69 |
| Cystine | 1.62 | 1.37 | 1.50 | 1.76 | 1.74 | 1.87 | 1.51 | 0.35 | 1.70 | 1.68 | 1.69 | 1.38 | 1.50 | 1.50 | 1.50 | 1.70 | 1.23 | 1.25 | 1.13 | 0.13 | 0.64 | 0.74 |
| Glutamic Acid | 26.06 | 24.10 | 23.74 | 29.00 | 27.04 | 28.02 | 22.85 | 14.51 | 23.12 | 26.55 | 23.60 | 22.32 | 23.5 | 23.74 | 22.30 | 23.40 | 22.65 | 23.60 | 28.92 | 15.35 | 9.86 | 19.20 |
| Glycine | 3.14 | 3.17 | 3.06 | 3.96 | 3.13 | 3.11 | 2.99 | 2.32 | 4.45 | 3.13 | 3.13 | 3.04 | 3.0 | 3.06 | 3.60 | 3.20 | 3.45 | 3.20 | 3.75 | 2.45 | 3.57 | 3.25 |
| Histidine | 1.83 | 1.65 | 1.78 | 2.39 | 1.92 | 2.01 | 1.81 | 1.39 | 2.98 | 1.87 | 1.90 | 1.71 | 1.8 | 1.78 | 2.90 | 2.60 | 2.1 | 2.70 | 2.27 | 1.21 | 1.4 | 1.20 |
| Isoleucine | 2.50 | 2.71 | 2.49 | 2.20 | 2.40 | 2.30 | 2.42 | 5.62 | 2.74 | 2.45 | 2.30 | 2.56 | 2.5 | 2.49 | 2.45 | 2.50 | 2.46 | 2.80 | 2.83 | 2.28 | 3.27 | 3.23 |
| Leucine | 4.69 | 4.69 | 4.42 | 4.70 | 4.69 | 4.69 | 4.24 | 4.35 | 4.34 | 4.69 | 4.90 | 4.33 | 4.4 | 4.42 | 5.30 | 4.60 | 4.35 | 4.35 | 4.42 | 4.31 | 4.99 | 4.69 |
| Lysine | 2.73 | 3.42 | 2.84 | 4.60 | 2.39 | 2.04 | 2.69 | 3.68 | 3.43 | 2.55 | 2.80 | 3.11 | 2.8 | 2.84 | 2.70 | 2.55 | 2.79 | 2.80 | 3.43 | 4.95 | 6.08 | 5.15 |
| Methionine | 1.29 | 1.22 | 1.37 | 3.39 | 1.33 | 1.36 | 1.44 | 0.65 | 2.45 | 1.31 | 2.38 | 1.37 | 1.3 | 1.37 | 1.40 | 2.40 | 1.83 | 1.37 | 2.45 | 1.65 | 1.12 | 1.05 |
| Phenylalanine | 3.13 | 2.96 | 2.98 | 3.40 | 3.22 | 3.31 | 2.93 | 0.37 | 3.13 | 3.18 | 3.60 | 2.88 | 2.9 | 2.98 | 3.31 | 3.18 | 2.68 | 2.93 | 3.18 | 2.82 | 2.79 | 2.53 |
| Proline | 7.22 | 5.90 | 6.62 | 9.23 | 1.88 | 8.54 | 6.66 | 3.33 | 6.13 | 7.55 | 6.50 | 5.98 | 6.5 | 6.62 | 6.40 | 1.80 | 6.85 | 6.60 | 6.75 | 4.89 | 2.80 | 2.60 |
| Serine | 3.86 | 3.57 | 3.72 | 3.66 | 4.00 | 4.15 | 3.72 | 0.65 | 6.27 | 3.93 | 3.70 | 3.58 | 3.7 | 3.72 | 3.60 | 3.70 | 3.45 | 3.73 | 5.23 | 3.65 | 3.09 | 2.84 |
| Threonine | 2.42 | 2.57 | 2.38 | 2.20 | 2.35 | 2.27 | 2.31 | 1.63 | 3.94 | 2.38 | 2.35 | 2.42 | 2.3 | 2.38 | 2.27 | 2.30 | 2.62 | 2.31 | 4.85 | 18.62 | 3.39 | 2.95 |
| Tryptophan | 0.68 | 0.88 | 0.65 | 1.12 | 0.59 | 0.49 | 0.56 | 0.62 | 0.76 | 0.64 | 0.86 | 0.70 | 0.67 | 0.65 | 1.10 | 0.95 | 0.95 | 1.12 | 0.65 | 0.11 | 0.72 | 1.36 |
| Tyrosine | 1.62 | 1.50 | 1.68 | 1.80 | 1.68 | 1.74 | 1.76 | 2.2 | 4.50 | 1.65 | 2.20 | 1.66 | 1.7 | 1.68 | 1.70 | 1.90 | 1.92 | 2.20 | 3.63 | 1.42 | 2.34 | 1.20 |
| Valine | 3.16 | 3.34 | 3.10 | 2.90 | 3.07 | 2.98 | 3.00 | 3.85 | 3.51 | 3.11 | 3.50 | 3.14 | 3.0 | 3.10 | 3.10 | 3.30 | 3.4 | 3.00 | 4.85 | 3.45 | 3.71 | 3.79 |

# INNOVENTION 2015

*Innovative Passion Fires Inventive Minds*

HIMEDIA®

## 5th generation

INNOVENTION 2015
in MICROBIOLOGY MEDIA

Chemically Defined

HiCynth™
Chemically Defined
Microbiology Media

**Relax with HiCynth™ Media**

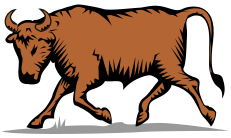
- No risk of TSE/BSE/GMO
- Formulated from pure substances at predetermined concentrations
- Precise chemical composition
- Nutritional requirements of bacterial species can be accurately determined
- Media with Consistent Performance

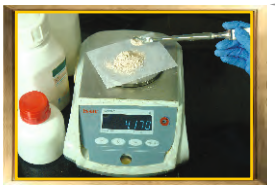
### 5th generation
**Chemically Defined Microbiology Media**

*Free from TSE / BSE / GMO*

### 4th generation
Vegetable based dehydrated culture media

*Free from TSE / BSE risk*

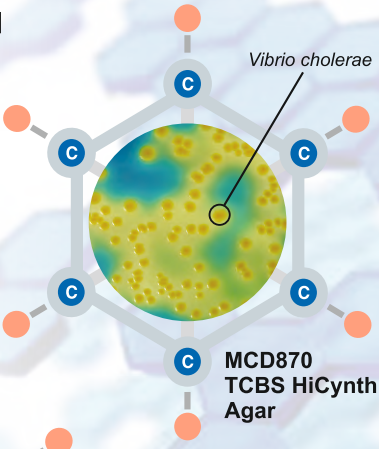




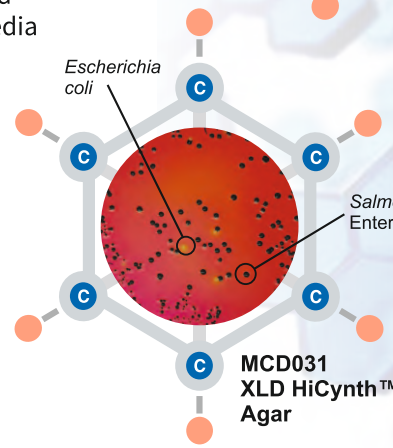
### 3rd generation
Animal based dehydrated culture media


### 2nd generation
Dehydrated culture media prepared using raw materials

### 1st generation
Media preparation in lab with the help of minced meat and other ingredients




**MCD870**
**TCBS HiCynth™ Agar**




**MCD031**
**XLD HiCynth™ Agar**

HiMediaLaboratories™

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