

**Streptococcus Lactis Differential HiVeg™ Agar Base****MV925**

Streptococcus Lactis Differential HiVeg Agar Base is used for differentiation of citrate utilizing lactic *Streptococci* - *Lactococcus lactis* (*Streptococcus lactis*) subspecies *diacetylactis* from citrate non-utilizing *Lactococcus lactis* (*Streptococcus lactis*) and *Lactococcus lactis* (*Streptococcus lactis*) subspecies *cremoris*.

**Composition \*\* :**

Ingredients	Grams/Litre
Nonfat (Skim) Milk	10.0
HiVeg hydrolysate No. 3	2.5
Dextrose	5.0
Agar	15.0

Final pH (at 25°C ) 6.6 ± 0.2

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

**Directions :**

Suspend 32.5 grams in 1000 ml distilled water. Heat to boiling with stirring to dissolve the medium completely. Sterilize by autoclaving at 10 lbs pressure (115°C) for 12 minutes. Cool to 45°C and aseptically add (30 minutes steam sterilized solutions) 10 ml of 10% potassium ferricyanide and 10 ml of citrate solution containing 0.25 g ferric citrate and 0.25 g sodium citrate. Gently mix and pour into the sterile petri plates. Dry the plates in dark for 24 hours at 30°C.

**Principle and Interpretation :**

This medium is prepared by completely replacing animal based peptones with vegetable based peptones thus making the medium BSE/TSE risk free. Streptococcus Lactis Differential HiVeg Agar Base is the modification of Streptococcus Lactis Differential Agar Base which is formulated as described by Kempler and McKay (1) and recommended by APHA (2) for differentiation of citrate utilizing lactic *Streptococci* - *Lactococcus lactis* (*Streptococcus lactis*) subspecies *diacetylactis* from citrate non-utilizing *Lactococcus lactis* (*Streptococcus lactis*) and *Lactococcus lactis* (*Streptococcus lactis*) subspecies *cremoris*.

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

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

**Gelling**

Firm, comparable with 1.5% Agar gel.

**Product Profile :****Vegetable based (Code MV)©****Animal based (Code M)****MV925****M925**

HiVeg hydrolysate No. 3

Peptonised milk

**Recommended for** : Differentiation of citrate utilizing lactic *Streptococci*-*Lactococcus lactis* (*Streptococcus lactis*) subspecies *diacetylactis* from citrate non-utilizing *Lactococcus lactis* (*Streptococcus lactis*) and *Lactococcus lactis* (*Streptococcus lactis*) subspecies *cremoris*.

**Reconstitution** : 32.5 g/l

**Quantity on preparation (500g)** : 15.38 L

**pH (25°C)** : 6.6 ± 0.2

**Supplement** : 10% Potassium ferricyanide and citrate solution,

**Sterilization** : 115°C / 12 minutes.

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

**Colour and Clarity**

Light yellow coloured, opaque gel with white precipitate forms in petri plates.

**Reaction**

Reaction of 3.25% w/v aqueous solution is pH 6.6 ± 0.2 at 25°C.

**Cultural Response**

Cultural characteristics observed after an incubation at 30°C for 18-48 hours with added 10% Potassium ferricyanide and citrate solution.

**Organisms (ATCC)**

*Streptococcus cremoris* (19257)

*Streptococcus lactis* (8000)

*Streptococcus lactis* subsp. *diacetylactis*

**Growth**

good-luxuriant

good-luxuriant

good-luxuriant

**References :**

- Kempler G.M. and McKay L.L., 1980, Appl. Environ. Microbiol., 39:926.
- Vanderzant C. and Splittstoesser D. (Eds.) 1992, Compendium of Methods for The Microbiological Examination of Foods, 3<sup>rd</sup> ed., APHA, Washington, D.C.