

SPS HiVeg™ Agar

MV632

Sulphite-Polymyxin-Sulphadiazene HiVeg Agar is used for the detection of *Clostridium perfringens* in foods.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate	15.0
Yeast extract	10.0
Sodium sulphite	0.5
Polymyxin B sulphate	0.01
Sulphadiazine	0.12
Ferric citrate	0.5
Agar	13.9

Final pH (at 25°C) 7.0 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 40 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle and Interpretation :

SPS HiVeg Agar is the modification of SPS Agar and is prepared using HiVeg hydrolysate which is free from BSE/ TSE risk. SPS Agar (Sulphite - Polymyxin - Sulphadiazine) was devised by Angelotti et al (1) and is a modification of the medium of Wilson and Blair and Mossel et al for the recovery of *Clostridium* species with Miller Prickett tubes (2,3). Most *Clostridium* species reduce, sulphite to sulphide which reacts with ferric citrate forming ferrous sulphide indicated by black coloured colonies. Certain strains of *Clostridium perfringens* fail to grow or form distinct black colonies (4). Other sulphite reducing gram positive and gram negative organisms are suppressed by Polymyxin B and Sulphadiazine.

Prepare serial dilutions of the samples to be tested and inoculate into SPS HiVeg Agar using the pour plate technique. If desired, pour cover layers using about 5 ml sterile medium. Incubate the plates anaerobically and enumerate the black colonies.

Quality Control :

Appearance of powder

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

Gelling

Firm, comparable with 1.39% Agar gel.

Colour and Clarity

Medium amber coloured, slightly opalescent gel forms in petri plates.

Reaction

Reaction of 4.0% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

Product Profile :

Vegetable based (Code MV)Ⓞ	Animal based (Code M)
MV632 HiVeg hydrolysate	M632 Casein enzymic hydrolysate
Recommended for	: Detection of <i>Clostridium perfringens</i> in foods.
Reconstitution	: 40.0 g/l
Quantity on preparation (500g)	: 12.5 L
pH (25°C)	: 7.0 ± 0.2
Supplement	: None
Sterilization	: 121°C / 15 minutes
Storage	: Dry Medium - Below 8°C, Prepared Medium 2 - 8°C.

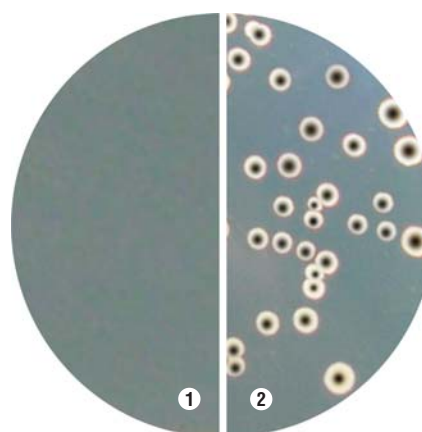
Cultural Response

Cultural characteristics observed after an incubation at 35 -37°C for 18 - 48 hours under anaerobic conditions.

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony
<i>Clostridium perfringens</i> (12924)	10 ² -10 ³	good-luxuriant	black
<i>Clostridium sporogenes</i> (11437)	10 ² -10 ³	poor - good	black
<i>Escherichia coli</i> (25922)	10 ² -10 ³	inhibited	-
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	none - poor	white

References :

1. Angelotti et al, 1962, Appl. Microbiol., 10:193.
2. Mossel, et al, 1956, J. Appl. Microbiol., 19:142.
3. Mossel, 1959, J. Sci. Food Agric., 19:662.
4. Downes, F.P and Ito K (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C



MV632 SPS HiVeg Agar
(Against dark background)

1. Control
2. *Clostridium perfringens*