Motility Nitrate HiVeg™ Medium, Buffered MV630

Motility Nitrate HiVeg Medium, Buffered is recommended for isolation and detection of *Clostridium perfringens* on the basis of motility and nitrate test.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	5.0
HiVeg extract	3.0
Galactose	5.0
Potassium nitrate	1.0
Disodium phosphate	2.5
Agar	3.0

Final pH (at 25°C) 7.3 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 19.5 grams in 1000 ml distilled water containing 5 ml glycerol. Heat to boiling to dissolve the medium completely. Dispense in test tubes to make them half full. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool quickly in cool running water and allow the tubed medium to solidify in an upright position.

Principle and Interpretation :

Motility Nitrate HiVeg Medium Buffered is prepared by completely replacing animal based peptones with vegetable peptones which makes the medium free of BSE/ TSE risks. Motility Nitrate HiVeg Medium, Buffered is the modification of Motility Nitrate Medium, Buffered which is formulated in accordance with FDA (1) and APHA (2).
HiVeg peptone and HiVeg extract, galactose provide essential nutrients for growth. Potassium nitrate is the substrate for nitrate reduction which is detected with the help of two reagents, viz. sulfanilic acid (1 gm in 125 ml 5 N acetic acid) and N-(1-naphthyl) ethylene diamine dihydrochloride (0.25gm in 200 ml 5N acetic acid). The presence of less quantity of agar in the medium makes it semisolid which allows detection of motility.
The pure cultures obtained from Fluid Thioglycollate HiVeg Medium (MV009) or Tryptone Sulphite Cycloserine HiVeg Agar (MV837) are stab-inoculated on Motility Nitrate HiVeg Medium, Buffered and incubated at 35°C for 24 - 48 hours.

Quality Control :

Appearance of powder
Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Product Profile :		
Vegetable based (Code MV)◉		**Animal based** (Code M)
MV630 HiVeg peptone HiVeg extract		**M630** Peptic digest of animal tissue Beef extract
Recommended for	:	Isolation and detection of *Clostridium perfringens* on the basis of motility and nitrate test.
Reconstitution	:	23.5 g/l
Quantity on preparation (500g)	:	21.27 L
pH (25°C)	:	7.3 ± 0.2
Supplement	:	Glycerol
Sterilization	:	121°C / 15 minutes
Storage : Dry Medium-Below 30°C, Prepared Medium 2 - 8°C.		

Gelling
Semisolid, comparable with 0.3% Agar gel.
Colour and Clarity
Light amber coloured, clear gel forms in tubes as butts.
Reaction
Reaction of 1.95% w/v aqueous solution is pH 7.3 ± 0.2 at 25°C.
Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 24 - 48 hours.

Organisms (ATCC)	Growth	Motility	Nitrate reduction
Clostridium absonum (27555)	luxuriant	W	±
Clostridium perfringens (12924)	luxuriant	-	+

Key : + = red-violet colour
± = weak or negative reaction
- = growth along stabline (non motile)
W = weakly motile

References :

1. Bacteriological Analytical Manual, 1995, Food and Drug Administration, 8th ed., AOAC International, USA.
2. Frances Pouch Downes and Keith Ito (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C.

◉ Prepared from GMO free Vegetable proteins replacing Animal based peptones. Freedom from BSE/TSE worries.