

TMV 1007 – LEIFSON AGAR (VEG.)

INTENDED USE

For isolation of *Salmonella* and *Shigella* species from clinical and non-clinical samples.

PRODUCT SUMMARY AND EXPLANATION

Leifson Agar (Veg) is prepared by completely replacing animal based peptone by vegetable peptones which makes the medium free of BSE/TSE risks. This media is the modification of Leifson Agar which is recommended for isolation of *Salmonella* and *Shigella* species.

COMPOSITION

Ingredients	Gms / Ltr
Veg extract No. 1	6.500
Veg peptone No. 1	5.000
Lactose	10.000
Sodium thiosulphate	5.400
Ferric ammonium citrate	1.000
Synthetic detergent No. III	1.500
Neutral red	0.020
Sodium citrate	6.000
Agar	12.000

PRINCIPLE

This medium consists of Veg Extract No.1 and Veg Peptone No.1 which provide essential growth nutrients. Synthetic detergent No. III inhibits all gram positive bacteria. Lactose is added to the medium to allow differentiation of lactose fermenting bacteria such as *Escherichia coli* from non-lactose-fermenting species such as *Salmonella* and *Shigella* species. Lactose fermenting strains grow as red to pink colonies because of absorption of neutral red indicator. Non fermenting species grow as colourless colonies with black centers due to production of hydrogen sulphide (H₂S) against *Shigella* which does not produce hydrogen sulphide (H₂S).

INSTRUCTION FOR USE

- Dissolve 47.42 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE OR OVERHEAT. Excessive heating is detrimental.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light pink coloured homogeneous free flowing powder.
Appearance of prepared medium	: Reddish orange coloured clear to very slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.5 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	H ₂ S	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	22592	50-100	Poor	10-20%	Pink	Negative reaction	35-37°C	18-24 Hours
<i>Enterococcus faecalis</i>	29212	$\geq 10^4$	Inhibited	0%	-	-	35-37°C	18-24 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	Good	40-50%	Pink mucoid	-	35-37°C	18-24 Hours
<i>Salmonella</i> serotype Enteritidis	13076	50-100	Luxuriant	$\geq 70\%$	Colourless	Positive reaction, black centered colonies	35-37°C	18-24 Hours
<i>Shigella flexneri</i>	12022	50-100	Good	40-50%	Colourless	Negative reaction	35-37°C	18-24 Hours
<i>Salmonella</i> serotype Typhimurium	14028	50-100	Luxuriant	$\geq 70\%$	Colourless	Positive reaction, black centered colonies	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i>	25923	$\geq 10^4$	Inhibited	0%	-	-	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.







DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Leifson, E., 1935, J. Pathol. Bacteriol., 40-581.
2. Macfaddin J. 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.1. Williams and Wilkins, Baltimore.



GMP Good Manufacturing Practices Certified	IVD For In Vitro Diagnostic Use	QTY. Quantity	LOT/ B. NO. Lot / Batch Number	REF Catalogue Number	 Manufacturer
 Temperature Unit	EC REP Authorized Representative <small>MedNet GmbH Buckstrasse 10 48163 Münster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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