

TM 2445 – LAKED BLOOD WITH KANAMYCIN AND VANCOMYCIN AGAR (LKV)

INTENDED USE

For the isolation and partial identification of obligately anaerobic gram-negative bacilli. Lkv agar is useful for the rapid isolation of *prevotella* species.

PRODUCT SUMMARY AND EXPLANATION

Laked Blood with Kanamycin and Vancomycin Agar (LKV) is an enriched, selective, and differential medium recommended for the isolation and partial identification of obligately anaerobic gram-negative bacilli. It agar is useful for the rapid isolation of *Prevotella* species.

COMPOSITION

Ingredients	Gms / Ltr
Agar	15.000
Pancreatic Digest of Casein	10.000
Meat Peptone	10.000
Sodium Chloride	5.000
Soy Peptone	3.000
Yeast Extract	2.000
Dextrose	1.000
L-Cysteine Hydrochloride	0.500
Sodium Bisulfite	0.100
Vitamin K 1	0.010
Hemin	0.005

PRINCIPLE

The medium consists of casein, soy peptone, meat peptone, yeast extract, and dextrose as a source of nutritional compounds essential for the growth of gram-negative bacilli. Kanamycin & Vancomycin acts as selective agents which prevents the growth of most obligate gram-negative and gram-positive anaerobic bacteria, along with most facultative anaerobic bacteria. Laked sheepblood and vitamin K 1 are added to facilitate the recovery, and pigment production, of *Prevotella melaninogenica* and *Porphyromonas* spp.

INSTRUCTION FOR USE

- Dissolve 46.61 grams in 995ml distilled water.
- Gently heat to boiling with swirling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
- Cool to 45-50°C. Add rehydrated contents of one vial of Kanamycin and Vancomycin Supplement and 5%v/v laked sheep blood.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Beige colour, homogeneous free flowing powder.
Appearance of prepared medium : Red colour, translucent gel.
pH (at 25°C) : 7.1 ± 0.4

INTERPRETATION

Cultural characteristics observed after incubation under anaerobic condition with added Kanamycin and Vancomycin Supplement and 5%v/v laked sheep blood. Recovery rate is considered 100% for bacteria growth on Sheep Blood Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation temperature	Incubation Period
<i>Bacteroides fragilis</i>	25285	50-100	Luxuriant	≥70%	35-37°C	18-48 Hours
<i>Prevotella melaninogenica</i>	25845	50-100	Luxuriant	≥70%	35-37°C	18-48 Hours
<i>Fusobacterium necrophorum</i>	25286	50-100	Fair	20-30%	35-37°C	18-48 Hours
<i>Clostridium perfringens</i>	13124	≥10 ³	Inhibited	0%	35-37°C	18-48 Hours
<i>Escherichia coli</i>	25922	≥10 ³	Inhibited	0%	35-37°C	18-48 Hours
<i>Staphylococcus aureus</i>	25923	≥10 ³	Inhibited	0%	35-37°C	18-48 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. Dowell, V. R., Jr., G. L. Lombard, F. S. Thompson and A. Y. Armfield. 1977. Media for the Isolation, Characterization and Identification of Obligately Anaerobic Bacteria. USDHHS, CDC. Atlanta, GA 30333.
2. Engelkirk, P. G., Duben-Engelkirk, J. and Dowell, V. R. 1992. Principles and Practices of Clinical Anaerobic Bacteriology. Star Publishing Co., Belmont, CA 94002.
3. Holdeman, L. V., F. P. Cato and W. E. C. Moore. 1987. Anaerobe Laboratory Manual. Virginia Polytechnic Institute and State University. Blacksburg, VA 24061
4. CLSI. Quality Control for Commercially Prepared Microbiological Culture Media; Approved Standard-Third Edition. (2004). CLSI document M22-A3. CLSI, 940 West Valley Road, Suite 1400, Wayne, PA 19087-1898.



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

***For Lab Use Only**
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