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OxyPRAS Plus® KVL Laked Blood (KVL) Agar Plate Product Insert

OxyPRAS Plus® KVL Agar plates use Kanamycin and Vancomycin for the isolation and cultivation of anaerobic bacteria from a variety of clinical and non-clinical materials.

Precautions:

OxyPRAS Plus® KVL Agar plates are for In-Vitro Use only. OxyPRAS Plus® KVL Agar plates are packaged aseptically and must be handled aseptically to maintain sterility during use. A **Safety Data Sheet** is available on our website.

Product Characteristics:

Tryptic Soy Agar (TSA) medium with blood, vitamin K₁, and hemin is an enriched, general purpose medium useful for the isolation of anaerobes (1,2,3). Vitamin K₁ and hemin provide nutrients for some strains of the pigmenting *Bacterioides* group, and enhances the growth of some *Bacterioides* sp. and some gram-positive, non-spore forming anaerobes (4,7). Vancomycin and Kanamycin aid in the selective isolation of gram negative anaerobes, especially *Bacterioides* (8). Kanamycin inhibits protein synthesis in susceptible microorganisms and Vancomycin inhibits gram-positive bacteria by interfering with cell wall synthesis (5). Laked blood improves pigmentation of the *Bacterioides melaninogenicus* - *Bacterioides asaccharolyticus* group (6).

The Oxyrase® Enzyme System used in OxyPRAS Plus® plates provides a reduced medium **before** sterilization and maintains the medium in a reduce state for storage and during use. The Oxyrase® Enzyme System prevents the formation of undesirable oxidation products in these PRAS plates. Growth of anaerobes on OxyPRAS Plus® plates require anaerobic incubation in jars, bags, or chambers.

| Media Formulation (per liter) | Initial pH: 7.5 (+/- 0.3) |
|-----------------------------------|---------------------------|
| Enzymatic Digest of Casein | 15.0 g |
| Enzymatic Digest of Animal Tissue | 5.0 g |
| Yeast extract | 5.0 g |
| Sodium Chloride | 5.0 g |
| L-Cysteine | 0.6 g |
| Agar | 15.0 g |
| Hemin | 5.0 mg |
| Vitamin K ₁ | 1.0 mg |
| Vancomycin | 1.1 mL |
| Kanamycin | 2.3 mL |
| Laked Sheep Blood | 50.0 mL |
| Oxyrase® Enzyme System | - proprietary - |
| Deionized water | (made up to final volume) |

This formula is typical. Production lots may be adjusted, to offset variances in raw materials in order to meet performance criteria.

Limitations:

Plates may only allow for growth of select organisms. Additional testing may be required to identify various colony types grown.

The Oxyrase® Enzyme System contains a penicillin binding protein that may interfere with penicillin and some related antibiotics.

Handling and Storage Instructions:

OxyPRAS Plus® KVL Agar plates will arrive at room temperature. The following storage options are listed below:

1. **Long Term Storage:** Store the product at 2°C to 8°C (cold temperature - CT). The expiration date of plates stored at this temperature is 6 months from the date of manufacture.
2. **Short Term Storage:** Store the product at 20°C to 25°C (room temperature - RT). The expiration date of plates stored at this temperature is 3 months from the date of manufacture.

If extended shelf life is not important, store plates at room temperature. Refer to plate / label for actual expiration date.

Instructions for Use:

Before use, allow OxyPRAS Plus® KVL plates to warm to room temperature. Remove the plate from the protective pouch. Examine plates for contamination, evidence of oxidation / discoloration (i.e. plate is brown, instead of clear red), and the expiration date.

After inoculation is complete, invert plates and incubate in an anaerobic bag, jar, or chamber to maintain an anaerobic environment. Use an appropriate indicator (such as OxyBlue™) inside the plate, bag, jar, or chamber to test / confirm anaerobiosis.

Quality Control:

Oxyrase, Inc. certifies that samples of each lot were quality control tested and performed acceptably according to Oxyrase, Inc.'s specifications, which include Clinical and Laboratory Standards Institute (M22-A3: Quality Assurance for Commercially Prepared Microbiological Culture Media). The following tests were confirmed:

| Organism | ATCC # | Results |
|--------------------------|--------|------------------------------|
| <i>B. fragilis</i> | 25285 | growth in 2-3 days |
| <i>C. perfringens</i> | 13124 | No growth in 2-3 days |
| <i>P. melaninogenica</i> | 25845 | growth in 2-3 days |
| <i>S. aureus</i> | 25923 | No growth in 2-3 days |
| <i>E. coli</i> | 25922 | growth inhibited in 2-3 days |

Guarantee:

We guarantee 30 days of shelf-life for RT and 90 days of shelf-life for CT from shipment date. If a longer shelf-life is needed, this should be arranged at the time your order is placed. If OxyPRAS Plus® KVL plates fail to arrive with at least a 4 week shelf life, are contaminated and or oxidized, or fail when used as specified under recommended storage and use conditions, Oxyrase, Inc. will refund your purchase price. To receive a product refund, write or call Oxyrase Inc. with the product lot number printed directly on the plate in question (a return of defective product may be required for further investigation and evaluation). Oxyrase, Inc. is available to answer any questions about this product and its applications.

ATCC is a trademark of the American Type Culture Collection

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1. J.F. MacFaddin. 1986. Media for Isolation, Cultivation, Identification, Maintenance of Medical Bacteria. *J. Basic Microbiology*. 26(4): 240.
2. Phillips, E., and P. Nash. 1985. Culture Media. *Manual of Clinical Microbiology*. 4: 1051-1092.
3. Sutter, V.L., Citron, D.M., Edelstein, M.A.C., and Finegold, S.M. 1985. 4th ed. **Wadsworth Anaerobic Bacteriology Manual**. Star Publishing Co., Belmont, CA. pgs.: 85-89.
4. Allen, S.D., Siders, T.A., and Marler, J.M. 1985. Isolation and Examination of Anaerobic Bacteria. *Manual of Clinical Microbiology*. 4: 413-433.
5. Estevez, E.G. 1984. Bacterial Plate Media: Review of Mechanisms of Action. *Lab. Med.* 15: 258-262.
6. Finegold, S.M., and Citron, D.M. 1980. Gram-Negative, Non-Spore Forming Anaerobic Bacilli. *Manual of Clinical Microbiology*. 3: 431-439.
7. Finegold, S.M., Miller, A.B., and Posnick, D.L. 1965. Further Studies on Selective Media for *Bacterioides* and Other Anaerobes. *Ernaehrungsfor.* 10: 517-528.
8. Gibbons, R.J., and MacDonald, J.B. 1960. Hemin and Vitamin K Compounds as Required Factors for the Cultivation of Certain Strains of *Bacterioides melaninogenicus*. *J. Bacteriol.* 80:164-170.
9. Adler, H.I., Crow, W.D., Hadden, C.T., Hall, J., and Machanoff, R. 1983. New Techniques for Growing Anaerobic Bacteria. *Biotechnol. Bioeng. Symp.* 13: 153-161.