



# Oxyrase, Inc.

P.O. Box 1345, Mansfield, OH 44901 ● Phone: (419) 589 - 8800

● Fax: (419) 589 - 9919 ● www.oxyrase.com

**OXYRASE®**

## **BBE/ANAEROBE KV LAKED BLOOD AGAR OXYPRAS BI-PLATE WITH OXYRASE®**

### **USE**

This medium is used for the isolation and cultivation of anaerobic bacteria from a variety of clinical and non-clinical materials.

### **PRINCIPLE**

Bile Esculin Agar with hemin is an enriched medium useful for the selection and presumptive identification of the *Bacteriodes fragilis* group (1,2,3). Differentiation of *Bacteroides sp.* is based on the hydrolysis of esculin and presence of catalase. Bile inhibits the growth of *Prevotella* and gentamicin inhibits the growth of *E. coli*. Hemin provides nutrients for some strains of the pigmenting *Bacteriodes* group, and enhance the growth of some *Bacteroides sp.* (4,5).

TSA based medium with blood, vitamin K<sub>1</sub>, and hemin is an enriched, selective medium useful for the isolation of some anaerobes (1,2,3). Vitamin K<sub>1</sub> and hemin provide nutrients for some strains of the pigmenting *Bacteriodes* group, and enhance the growth of some *Bacteroides* species and some gram-positive non-spore forming anaerobes (4,5). Vancomycin and Kanamycin aid in the selective isolation of gram negative anaerobes, especially *Bacteroides* (6). Kanamycin inhibits protein synthesis in susceptible microorganisms and Vancomycin inhibits gram-positive bacteria by interfering with cell wall synthesis (7). Laked blood improves pigmentation of the *Bacteriodes melaninogenicus* - *Bacteriodes asaccharolyticus* group (8).

OxyPRAS Bi-Plates provide a reduced medium before sterilization and maintains the medium in a reduce state for storage and during use (9). Growth of anaerobes on OxyPRAS Bi-Plates requires anaerobic incubation in jars, bags, or chambers (9).

### **FORMULA PER LITER FOR BBE/ANAEROBE KV LAKED BLOOD**

<b>BBE AGAR</b>		<b>ANAEROBE KV LAKED BLOOD</b>	
Beef Extract	11.0 g	Pancreatic Digest of Casein	15.0 g
Gelatin	34.5	Papaic Digest of Animal Tissue	5.0
Oxgall	20.0	Yeast Extract	5.0
Esculin	1.0	Sodium Chloride	5.0
Ferric citrate	0.5	L-Cysteine	0.58
Agar	20.0	Agar	20.0
Hemin	10.0mg	Hemin	5.0 mg
Gentamicin	100.0	Vitamin K <sub>1</sub>	1.0
Deionized water	1000.0 ml	Vancomycin	10.5
Maintained with Oxyrase®		Kanamycin	114.0
Initial pH 7.2 - 7.7		Laked Sheep Blood	50.0 ml
		Deionized Water	1000.0
		Maintained with Oxyrase®	
		Initial pH 7.2 - 7.8	

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

## STORAGE OF OXYPRAS BI-PLATE

When you receive OxyPRAS plates, you have two storage options. Either, store at 2 - 8 C (cold temperature), or store at 20 - 25 C (room temperature). If you want extended shelf-life, then store the plates at cold temperature. Expiration date stored at 2 - 8 C is 6 months from the date of manufacturing. If you need space in the refrigerator and the extended shelf-life doesn't matter to you, then store the plates at room temperature. Expiration date stored at 20- 25 C is 3 months from the date of manufacturing. See Label for actual expiration date for each condition.

Store OxyPRAS plates in an inverted position and protect from light.

## USE OF OXYPRAS BI-PLATE

Before use, warm OxyPRAS Bi-Plate to room temperature. Remove the plate from the protective pouch. Examine plates for contamination, expiration date, and evidence of deterioration such as dried agar or discoloration.

After inoculating, invert the OxyPRAS Bi-Plate and incubate in an anaerobic bag, jar, or chamber in order to grow an anaerobic microorganism. Use appropriate indicator inside the bag, jar, or chamber to test for anaerobiosis.

## LIMITATIONS OF PROCEDURE

Further testing is required to identify colonies. Biochemical and serological procedures may be found in appropriate references.

## 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 Laboratory Standards Institute standards specified in Document M22-A3, Quality Assurance for Commercially Prepared Microbiological Culture Media. The following tests were performed.

### RESULTS FOR BBE AGAR

<u>Organism</u>	<u>ATCC#</u>	<u>Result</u>
<i>B. fragilis</i>	25285	growth, black colonies in 3-5 days
<i>P. melaninogenica</i>	25845	no growth in 72 hrs
<i>E. coli</i>	25922	no growth in 72 hrs

### RESULTS FOR ANAEROBE KVL BLOOD AGAR

<u>Organism</u>	<u>ATCC#</u>	<u>Result</u>
<i>B. fragilis</i>	25285	growth in 3-5 days
<i>C. perfringens</i>	13124	growth inhibited in 72 hrs
<i>E. coli</i>	25922	growth inhibited in 72 hrs
<i>S. aureus</i>	25923	growth inhibited in 72 hrs

User may test plates sampled from a particular lot by streaking them with stock cultures of *Bacteroides fragilis*, *Prevotella melaninogenica*, *Clostridium perfringens*, *Escherichia coli* and *Staphylococcus aureus*.

## BIBLIOGRAPHY

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