



OXYRASE®

# Oxyrase, Inc.

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## ANAEROBIC BRUCELLA BLOOD AGAR OXYPRAS 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

Brucella medium with blood, vitamin K<sub>1</sub>, and hemin is an enriched, general purpose medium useful for the isolation of 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 sp.* and some gram-positive non-spore forming anaerobes (4,5). Defibrinated sheep blood provides additional nutrients and enables the demonstration of hemolytic reactions. Some beta hemolytic species may produce greenish reactions that could be mistaken for alpha hemolysis because of the relatively high content of carbohydrates in the medium. OxyPRAS provides a reduced medium before sterilization and maintains the medium in a reduce state for storage and during use (6). Oxyrase® prevents the formation of undesirable oxidation products in these PRAS plates (6). Growth of anaerobes on OxyPRAS plates requires anaerobic incubation in jars, bags, or chambers (6).

### FORMULA PER LITER

Pancreatic Digest of Casein	10.0 g
Peptic Digest of Animal Tissue	10.0
Yeast extract	2.0
Sodium Chloride	5.0
Dextrose	1.0
Sodium Bisulfite	0.1
L-Cysteine	0.4
Agar	22.0
Hemin	5.0 mg
Vitamin K <sub>1</sub>	1.0
Sheep Blood	50.0 ml
Deionized water	1000.0
Maintained with Oxyrase®	

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

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

Before use, warm OxyPRAS 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 (i.e. change blue-red to a bright red).

After inoculating, invert the OxyPRAS 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 and Laboratory Standards Institute standards specified in Document M22-A3, Quality Assurance for Commercially Prepared Microbiological Culture Media. The following tests were performed.

### RESULTS

<u>Organism</u>	<u>ATCC #</u>	<u>Results</u>
<i>B. fragilis</i>	25285	growth in 3-5 days
<i>C. perfringens</i>	13124	growth, double zone hemolysis in 3-5 days
<i>F. nucleatum</i>	25586	growth in 3-5 days
<i>P. levii</i>	29147	growth, brown-black pigmentation in 3-5 days
<i>P. anaerobius</i>	27337	growth in 3-5 days

User may test plates sampled from a particular lot by streaking them with stock cultures of *Bacteroides fragilis*, *Clostridium perfringens*, *Fusobacterium nucleatum*, *Porphyromonas levii*, and *Peptostreptococcus anaerobius*.

## BIBLIOGRAPHY

1. Phillips and Nash. 1985. In Manual of Clinical Microbiology. 4th edition, ASM, Washington, D.C.
2. MacFaddin. 1985. Media for isolation, cultivation, identification, maintenance of medical bacteria. vol. 1, Williams & Wilkins, Baltimore.
3. Sutter, Citron, Edelstein and Finegold. 1985. Wadsworth Anaerobic Bacteriology Manual. 4th edition, Star Publishing Co., Belmont, CA.
4. Allen, Siders and Marler. 1985. Manual of Clinical Microbiology, 4th edition, ASM, Washington, D.C.
5. Gibbons and MacDonald. 1960. J. Bacteriol. **80**: 164.
6. Oxyrase, Inc. product literature.