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OxyPRAS™ Brain Heart Infusion (BHI) Broth Product Insert

OxyPRAS® BHI Broth is a **P**re-**R**educed **A**naerobically **S**terilized nutritionally enriched medium that is reduced with cysteine and is used for isolating and growing anaerobes.

Precautions:
OxyPRAS™ BHI Broth is for In-Vitro Use only. OxyPRAS™ BHI Broth is anaerobically sterilized and packaged aseptically and must be handled aseptically to maintain sterility during use. A **Material Safety Data Sheet** is available on our website.

Product Performance:
OxyPRAS™ BHI Broth is a nutritious broth made from infusions of brain, heart tissue, and peptones that supply protein and other nutrients necessary to support the growth of microorganisms.

OxyPRAS™ BHI Broth is supplemented with Vitamin K_1 and Hemin which provide growth factors required by certain obligate anaerobes (1,2,3,4,5), and supports growth of fastidious anaerobes. OxyPRAS™ BHI Broth is reduced with cysteine and anaerobically sterilized using the Oxyrase® Enzyme System.

Anaerobic sterilization of a reduced medium prevents the formation of undesirable oxidation products that interfere with growth of anaerobes.

OxyPRAS™ BHI Broth is cell-free and will not interfere with gram stain interpretation of cultures grown in it. Each 5 mL tube is sealed with a screw cap lid, to ensure its sterility and ease of use.

Media Formulation (per liter)	
Brain Heart Infusion Broth	37.0 **g**
Cysteine hydrochloride	40.0 **mg**
Hemin	5.0 **mg**
Vitamin K_1	1.0 **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:
To identify microorganisms grown in broth, streak the broth onto plates for individual colony isolation.

Handling and Storage Instructions:
OxyPRAS™ BHI Broth will arrive at room temperature. The following storage options are listed below:

1. Short / Long Term Storage: Store product at 2°C to 25°C in the dark. Do ***not*** shake or agitate these tubes.

When stored in this manner, the product will maintain its full activity to the printed expiration date on the label.

In some cases, a precipitate may be observed during storage, but will not affect OxyPRAS™ BHI Broth performance.

Instructions for Use:
OxyPRAS™ BHI Broth is ready for use and no further preparation is necessary. However, for anaerobe samples, the addition of Oxyrase® for Broth or AnaSelect® for Broth is needed to establish and maintain an anaerobic environment.
For liquid specimens, inoculate tube(s) with 1 drop of specimen using a sterile pipette *without* mixing, and recap tube(s).

For swab specimens, insert swab into broth after inoculation of plated media. Aseptically, squeeze swab against side of tube *without* mixing, and remove swab and recap tube.

Aerobically incubate closed tube(s) for 24 to 48 hours. Caps may be loosely fitted to prevent pressure build-up due to gas formation generated by some microorganisms. Do ***not*** shake or agitate these tubes during incubation and or observation.

User 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
F. nucleatum	25586	growth / hemolysis
P. levii	29147	growth / turbid
P. anaerobius	27337	growth / turbid
B. adolescentis	15703	growth / turbid
F. naviforme	25832	growth / turbid
- wet mount -		- cell free -

Growth in tubes, observed as turbidity, often starts at the bottom of the tube. Should growth appear, it should be examined by Gram stain and subcultured onto appropriate plated media (i.e. OxyPRAS Plus® Brucella Blood Agar and or AnaSelect® OxyPRAS Plus® Blood Agar). As a sterility control, uninoculated tubes should be included or incubated along with specimen tube(s), for 24 to 48 hours.

Guarantee:
We guarantee 90 days of shelf-life from shipment date. If a longer shelf-life is needed, this should be arranged at the time the order is placed.

If OxyPRAS™ BHI Broth does not promote growth 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 tube 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.

1. Allen, S.D., Siders, T.A., and Marler, J.M. *1985*. Isolation and Examination of anaerobic Bacteria. Manual of Clinical Microbiology. **4**: 413-433.
2. Dowell, V.R. Jr., G.L. Lombard, F.S Thompson, and A.Y. Armfeild. *1977*. Media for Isolation, Characterization, and Identification of Obligately Anaerobic Bacteria. (**Laboratory Methods in Anaerobic Bacteriology**). CDC Laboratory Manual, DHEW Publications No. (CDC) 87-8272.
3. Dowell, V.R. Jr., and T.M. Hawkins. *1974*. **Laboratory Methods in Anaerobic Bacteriology**. CDC Laboratory Manual, DHEW Publications No. (CDC) 79-8272.
4. Starr, G.E., G.E. Killgore, and V.R. Dowell, Jr. *1971*. Comparison of Schaedler Agar and Trypticase Soy-Yeast Extract Agar for the Cultivation of Anaerobic Bacteria. Appl Microbiol. **22**(4): 655-658.
5. Gibbons, R.J., and MacDonald, J.B. *1960*. Hemin and Vitamin K Compounds as Required Factors for the Cultivation of Certain Strains of *Bacteriodes melaninogenicus*. J Bacteriol. **80**: 164-170.