



## Oxyrase, Inc.

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### BHI-HK Broth Product Insert

#### Use:

Brain Heart Infusion Broth is a general purpose liquid medium used in the cultivation of fastidious and non-fastidious microorganisms, including aerobic and anaerobic bacteria, from a variety of clinical and non-clinical materials. This medium has been supplemented with Vitamin K<sub>1</sub> and Hemin.

#### Summary and Explanation:

Brain Heart Infusion Broth is used for the cultivation of a wide variety of microorganisms.

#### Principles:

The medium is a nutritious, buffered broth that contains infusions of brain and heart tissue and peptones to supply protein and other nutrients necessary to support the growth of fastidious and non-fastidious microorganisms. It is a highly nutritious medium and when supplemented with Hemin and Vitamin K<sub>1</sub>, it provides growth factors required by certain obligate anaerobes.<sup>1-5</sup>

#### Formula

Brain Heart Infusion	37.0 g
Vitamin K 1%	0.1 ml
Hemin 10 mg/ml	0.5 ml
Deionized water	1000.0 ml

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

#### Precautions

This medium is for In Vitro Diagnostic Use only. Precautions should be taken against the dangers of microbiological hazards. Specimens, containers, and media should be sterilized after use.

#### Storage Instructions

This medium is ready for use and no further preparation is necessary. Media should be stored at 2-25 C in the dark and remain in the original packaging until needed.

#### Evidence of Deterioration

This medium should not be used if contaminated or if the expiration date has passed. If any deficiencies of these types are observed, notify the manufacturer.

#### Specimen Collection

Specimens should be protected from excessive heat and cold and should be delivered to the laboratory without delay. The specimen should be collected prior to the initiation of therapy. If the specimen is collected after therapy has begun, the microbiologist should be notified. Additional information on the collection of clinical specimens can be found in standard reference texts.



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### Other Material Required but not Supplied

The usual clinical microbiological equipment such as loop, burner, and incubator, and incubator are needed for procedures involving the use of this product. Other media required will depend on the scheme used by the microbiologist.

### Procedure

With liquid specimens, tubed media should be inoculated with 1 to 2 drops of the specimen using a sterile pipette. Swab specimens may be inserted into broth after inoculation of plated media. Incubate tubed media at appropriate temperatures and atmospheres depending on type of organisms being cultured.

### Expected Results

Growth in tubes is indicated by the presence of turbidity compared to an uninoculated control. If growth appears, cultures should be examined by Gram stain and subcultured onto appropriate media, e.g. a TSA w/sheep blood and/or Chocolate Agar, Anaerobic Blood agar, etc.

### User Quality Control

Prior to use, at least two tubes should be incubated at 35-37 C for a minimum of 24 hours and examined for sterility. Samples may be tested with stock cultures of *Bacteriodes fragilis*, *Clostridium perfringens*, *Fusosbacterium nucleatum*, *Porphyromonas levii*, and / or *Peptostreptococcus anaerobius*.

### Results

<i>B. fragilis</i> ATCC 25285	Growth/turbid
<i>C. perfringens</i> ATCC 13124	Growth/turbid
<i>F. nucleatum</i> ATCC 25586	Growth/turbid
<i>P. levii</i> ATCC29147)	Growth/turbid
<i>P. anaerobius</i> , ATCC 27337	Growth/turbid

### Limitation of the Procedure

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

### Bibliography

1. Dowell, Lombard, Thompson and Armfield, 1977. Media for isolation, characterization, and identification of obligately anaerobic bacteria CDC Laboratory Manual, CDC, Atlanta.
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3. Dowell and Hawkins. 1979. Laboratory methods in anaerobic bacteriology. CDC Laboratory Manual. HEW Publication No (CDC), 79-8272. CDC, Atlanta
4. Starr, Killgore, and Dowell. 1971. Appl. Microbiol. 22:655.
5. Gibbons and MacDonald. 1960. J. Bacteriol. 80:164.