

## Brucella Agar Plate with Hemin & Vitamin K1

MP1039

### Intended Use:

Recommended for the isolation and cultivation of *Brucella* species.

### Composition\*\*

Ingredients	g / L
Tryptone	10.000
Peptone	10.000
Yeast extract	2.000
Dextrose (Glucose)	1.000
Sodium chloride	5.000
Sodium bisulphite	0.100
Hemin	0.010
Vitamin K1	0.010
Agar	15.000
Defibrinated sheep blood	50.000ml
Final pH ( at 25°C)	7.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

### Principle And Interpretation

The agents of brucellosis, *Brucella* species are normal flora of the genital and urinary tracts of many animals including goats, pigs, cows and dogs. Most humans acquire the disease through ingestion of contaminating milk or through occupational exposure; the disease is particularly common among abattoir workers (1).

Brucella Agar Base w/ Hemin and Vitamin K1 is a modified (2,3,4) and highly enriched medium, which can be used for the isolation of *Brucella* and other anaerobic bacteria (5,6).

The medium contain tryptone, peptone and yeast extract serves as sources of carbon, nitrogen, long chain amino acids and essential growth nutrients including B-complex vitamins. Dextrose serves as a source of energy. Addition of blood provides nutrients and helps to differentiate hemolytic organisms (5,6). Presence of hemin and Vitamin K1 supports growth of other fastidious bacteria like *Bacteroides* species and gram-positive spore bearers like *Clostridium* species (7). The specimen should be inoculated onto the plate (reduced earlier by placing under anaerobic conditions for 18- 24 hrs) as early as possible. Swab cultures are directly streaked. Non-swab cultures are inoculated using an inoculating loop. Incubation is carried out anaerobically at 35°C for at least 48 hours; however, negative results should be reported only after incubation for 7 days.

### Type of specimen

Clinical samples - Bone marrow, other bodily fluids, etc

### Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (8,9).

After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions :

In Vitro diagnostic Use only. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

### Limitations

1. All presumptive anaerobic organisms must be identified by confirmatory test.
2. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium
3. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

## Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

## Quality Control

### Appearance

Sterile Brucella agar w/hemin and vitamin K1 in 90 mm disposable plate with smooth surface and absence of black particles/cracks/bubbles

### Colour of medium

Red coloured medium

### Quantity of medium

25ml of medium in 90mm disposable plate

### pH

6.80- 7.20

### Sterility Check

Passes release criteria

### Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24 - 48 hours under anaerobic conditions.

Organism	Inoculum (CFU)	Growth	Recovery
<i>Bacteroides fragilis</i> ATCC 25285	50-100	good-luxuriant	>=50%
<i>Clostridium perfringens</i> ATCC 13124 (00007*)	50-100	good-luxuriant	>=50%

Key : (\*) Corresponding WDCM numbers.

## Storage and Shelf Life

On receipt store between 2-8°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (8,9).

## Reference

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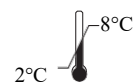
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