

# TM 681 – BRUCELLA AGAR BASE W/ HEMIN AND VITAMIN K

#### **INTENDED USE**

For cultivation of Brucella species and for isolation and subculture of anaerobes by adding blood.

# PRODUCT SUMMARY AND EXPLANATION

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. Brucella Agar Base w/ Hemin and Vitamin K1 is a modified and highly enriched medium, which can be used for the isolation of Brucella and other anaerobic bacteria.

## **COMPOSITION**

Ingredients	Gms / Ltr	
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	

# **PRINCIPLE**

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. Presence of hemin and Vitamin K1 supports growth of other fastidious bacteria like Bacteroides species and gram-positive spore bearers like Clostridium species.

#### **INSTRUCTION FOR USE**

- Dissolve 43.12 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add 5% v/v sterile defibrinated sheep blood.
- Mix well before pouring into sterile Petri plates.

# **QUALITY CONTROL SPECIFICATIONS**

**Appearance of Powder** : Light yellow to tan homogeneous free flowing powder.

: Basal medium: Light amber coloured clear to slightly opalescent gel. After Appearance of prepared medium

addition of 5% v/v sterile defibrinated blood: Cherry red coloured opaque gel

forms in Petri plates.

: 7.0±0.2 pH (at 25°C)











## **INTERPRETATION**

Cultural characteristics observed after incubation in presence of 10% CO<sub>2</sub> with added 5% v/v sterile defibrinated sheep blood.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Bacteroides fragilis	25285	50-100	Good-luxuriant	>=50%	35-37°C	48 Hours
Clostridium perfringens	13124	50-100	Good-luxuriant	>=50%	35-37°C	48 Hours

#### **PACKAGING:**

In pack size of 500 gm bottles.

## **STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

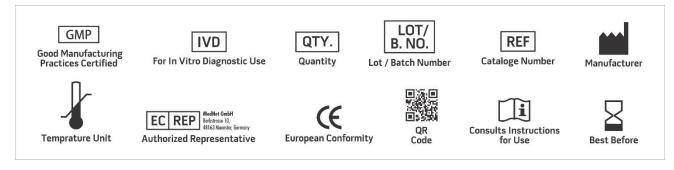
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

## **DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

# **REFERENCES**

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NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.















\*For Lab Use Only Revision: 08 Nov., 2019









