

Serum dextrose agar (Brucella agar base)

Recommended for the cultivation and isolation of Brucella species.

REF: BS.1/SDA01.100.0100
REF: BS.1/SDA01.500.0500

100 Gram
500 Gram

REF: BS.1/SDA01.250.0250

250 Gram

CLINICAL SIGNIFICANCE

Brucellosis is a zoonotic disease with a domestic animal reservoir. It is an occupational disease of veterinarians, microbiologists, farmers etc. The route of infections is genital, nasopharyngeal, gastrointestinal, conjunctival, respiratory and through abraded skin (1,2). Brucellosis in humans has a variable incubation period, an insidious or abrupt onset and no pathognomic symptoms or signs. Brucella Agar was designed for cultivating *Brucella* species from diagnostic specimens. With the incorporation of blood or other nutritious substances, it facilitates the cultivation of variety of fastidious anaerobic organisms (3). However, Brucella Medium is supplemented with antibiotics to prevent overgrowth of other accompanying organisms. Brucella Agar Base w/ 1.0% Dextrose was originally developed by Jones and Morgan (4) for preparations of serum-dextrose-antibiotic medium used for the isolation and cultivation of Brucella species.

METHOD PRINCIPLE

The medium contains peptone and Beef extract, which facilitates cultivation of variety of fastidious anaerobic organisms; by providing essential nutrients. Dextrose serves as source of energy. Addition of antibiotics (as FD) makes the medium highly selective for Brucella species. Ethyl violet and circulin, which were recommended initially, are no longer used (5).

MEDIA COMPOSITION

Item	Formula per liter of medium
- Peptone	10.00 gm
- Beef extract	5.000 gm
- Dextrose	10.00 gm
- Sodium chloride	5.000 gm
- Agar	15.00 gm

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.

S57: use appropriate container to avoid environmental Contamination.

S61: avoid release in environment.

For further information, refer to the serum dextrose agar material safety data sheet.

STORAGE AND STABILITY

BioScien Serum Dextrose Agar dehydrated media are stable until expiration date stated on label when properly stored 10-30°C. The prepared medium should be stored at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Final pH 7.5 ± 0.2 at 25°C

MEDIA PREPARATION

1. Suspend 22.5 grams in 500 ml purified/distilled water.
2. Adjust pH to 7.5 ± 0.2 at 25°C
3. Heat to boiling to dissolve the medium completely.
4. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes.
5. Cool to 45-50°C and aseptically add sterile 5% (v/v) inactivated Horse serum (Inactivate RM1239 by heating at 56°C for 30 minutes) and rehydrated contents of one vial of Brucella Selective Supplement.
6. Mix well and pour into sterile Petri plates.

Deterioration

The color of **BioScien** Serum Dextrose Agar medium is Cream to yellow homogeneous free flowing powder. If there are any physical changes, discard the medium.

The hydrated medium is Light yellow coloured, clear to slightly opalescent gel forms in Petri plates, media should not be used if there are any signs of deterioration (shrinking, cracking, or discoloration), and contaminations.

SPECIMEN COLLECTION AND PRESERVATION

Clinical samples – Vaginal secretions

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile cups
- Sterile petri-dishes
- Incubator

PERFORMANCE CHARACTERISTICS

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








Test Organisms	Growth
<i>Brucella melitensis</i> ATCC 4309	luxuriant
<i>Brucella suis</i> ATCC 4314	luxuriant
<i>Escherichia coli</i> ATCC 25922	Inhibited
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923	Inhibited

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact **BioScien** technical support.

REFERENCES

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- American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
- Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.

SYMBOLS IN PRODUCT LABELLING	
IVD For in-vitro diagnostic use	 Number of <n> test in the pack
LOT Batch Code/Lot number	 Caution
REF Catalogue Number	 Do not use if package is damaged
 Temperature Limitation	 Consult Instruction for use
 Expiration Date	
 Manufactured by	



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