

TM 682 – BRUCELLA SELECTIVE MEDIUM BASE

INTENDED USE

For isolation and identification of *Brucella* species.

PRODUCT SUMMARY AND EXPLANATION

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. 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. 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 for preparations of serum-dextrose-antibiotic medium used for the isolation and cultivation of *Brucella* species. 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

COMPOSITION

Ingredients	Gms / Ltr
Beef heart, infusion from	500.000
Tryptose	10.000
Sodium chloride	5.000
Gelatin	1.000
Dextrose (Glucose)	2.500
Agar	15.000

PRINCIPLE

The medium contains Beef heart, infusion and tryptose, which facilitates cultivation of variety of fastidious anaerobic organisms; by providing essential nutrients. Gelatin serves as a source of nutrients. Glucose serves as source of energy.

INSTRUCTION FOR USE

- Dissolve 21.75 grams in 500 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 sterile 10% v/v Sheep blood.
- Also add rehydrated contents of one vial of Brucella Selective Supplement.
- Mix well and pour into sterile Petri plates

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light yellow coloured, clear to slightly opalescent gel forms in Petri plates On addition of 10% v/v sterile sheep blood cherry red coloured opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.4±0.2



INTERPRETATION

Cultural characteristics observed after incubation in presence of 10% Carbon dioxide atmosphere with added sterile 10%v/v sheep blood and Brucella Selective Supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Brucella melitensis</i>	4309	50-100	Luxuriant	>=70%	35-37°C	24-48 Hours
<i>Brucella suis</i>	4314	50-100	Luxuriant	>=70%	35-37°C	24-48 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	>=70%	35-37°C	24-48 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	50-100	Inhibited	>=70%	35-37°C	24-48 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

1. Alton G. G. and Jones L. M., 1967, Lab Technique in Brucellosis, WHO, Geneva.
2. Atlas R. M., 1997, Handbook of Microbiological Media, 2nd Ed., Parks L.C. (Ed.), CRC Press, New York.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. Jones Lois M. and Brinley Morgan W. J., 1958, Bull. Wld. Hlth. Org., 19:200-203
6. Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Tenover F. C., Tenover F. C., (Eds.), 8th Ed., 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.
7. Young E. J., 1983, Human Brucellosis, Rev. Infect. Dis., 5:821-842



GMP Good Manufacturing Practices Certified	IVD For In Vitro Diagnostic Use	QTY. Quantity	LOT/ B. NO. Lot / Batch Number	REF Catalogue Number	 Manufacturer
 Temperature Unit	EC REP MedNet GmbH Barkstrasse 10, 49163 Muenster, Germany Authorized Representative	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

***For Lab Use Only**
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