BRUCELLA AGAR (7120)

Intended Use
Brucella Agar is used for the cultivation of *Brucella* spp. and other fastidious microorganisms.

Product Summary and Explanation
Brucella Agar is prepared according to the APHA formula for Albimi Broth.[1] Brucella Agar is a general purpose medium for the cultivation of *Brucella* spp. and fastidious microorganisms including *Streptococcus pneumoniae*, *Streptococcus viridans*, and *Neisseria meningitidis*.[2] With the addition of blood, Brucella Agar is used to determine bacterial hemolytic reactions.[2] Brucella Agar can be used as a base for the isolation of *Campylobacter* spp. [2]

Brucellosis is a zoonotic disease with a domestic-animal reservoir.[3] Transmission by milk, milk products, meat, and direct contact with infected animals are the usual routes of exposure.[3]

Principles of the Procedure
The nitrogen and carbon source is provided by Enzymatic Digest of Casein and Enzymatic Digest of Animal Tissue in Brucella Agar. Yeast Extract is the vitamin source. Dextrose is the carbohydrate. Sodium Chloride maintains the osmotic environment. Sodium Bisulfite is added to enhance growth. Agar is the solidifying agent.

Formula / Liter
Enzymatic Digest of Casein..... 10 g
Enzymatic Digest of Animal Tissue ..... 10 g
Yeast Extract ..... 2 g
Sodium Chloride ..... 5 g
Dextrose ..... 1 g
Sodium Bisulfite..... 0.1 g
Agar ..... 15 g
Final pH: 7.0 ± 0.2 at 25°C
Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precautions
1. For Laboratory Use.
2. *Brucella* spp. are classified as Biosafety Level 3 pathogens. Procedures with live cultures and antigens must be confined to Class II biological safety cabinet (BSC).[3]
3. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions
1. Suspend 43 g of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.

Quality Control Specifications
Dehydrated Appearance: Powder is homogeneous, free flowing, and light beige.

Prepared Appearance: Prepared medium is clear to slightly hazy and yellow beige.

Expected Cultural Response: Cultural response on Brucella Agar at 35°C under 3% CO_2 after 18 - 96 hours incubation.

Microorganism	Response
Brucella ovis ATCC® 25840	growth
Escherichia coli ATCC® 25922	growth
Streptococcus pyogenes ATCC® 19615	growth

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure
Refer to appropriate references for a complete discussion on the isolation and identification of *Brucella* spp.[4,5]

Results
Refer to appropriate references for results.

Storage
Store sealed bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

Expiration
Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitation of the Procedure
Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Packaging

Brucella Agar	**Code No.**	**7120A**	**500 g**
		7120B	**2 kg**
		7120C	**10 kg**

References

1. **Hausler, W. J. (ed.).** 1976. Standard methods for the examination of dairy products, 14th ed. American Public Health Association, Washington, D.C.
2. **MacFaddin, J. D.** 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1, p. 110-114. Williams & Wilkins, Baltimore, MD.
3. **Moyer, N. P., and L. A. Holcomb.** 1995. *Brucella*, p. 549-555. *In* P. R. Murray, E. J. Baron, M. A. Pfaller, F. C. Tenover, and R. H. Yolken (eds.). Manual of clinical microbiology, 6th ed. American Society for Microbiology, Washington, D.C.
4. **Isenberg, H. D. (ed.).** 1992. Clinical microbiology procedures handbook. American Society for Microbiology, Washington, D.C.
5. **Baron, E. J., L. R. Peterson, and S. M. Finegold.** 1994. Bailey & Scott's diagnostic microbiology, 9th ed. Mosby-Year Book, Inc., St. Louis, MO.

Technical Information
Contact Acumedia Manufacturers, Inc. for Technical Service or questions involving dehydrated culture media preparation or performance at (410)780-5120 or fax us at (410)780-5470.