

B3051 Brucella Broth Base

Recommended for enrichment, isolation and cultivation of *Brucella* or *Campylobacter* species.

Composition:

Ingredients	Grams/Litre
Casein Enzymic Hydrolysate	10.0
Peptic Digest of Animal Tissue	10.0
Yeast Extract	2.0
Dextrose	1.0
Sodium Chloride	5.0
Sodium bisulphite	0.1
Final pH 7.0 +/- 0.2 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C. Prepared medium appears yellow colored and is a clear to slightly opalescent solution.

Directions:

Suspend 14.05 g of Brucella Broth Base in 500 ml of distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add sterile 5% v/v heat inactivated (Cat. No H1138) horse serum. Add polymyxin B (2'500 IU, Cat. No. P4932), bacitracin (12'500 IU, Cat. No 11702), nystatin (50'000 IU, Cat. No. N3503), cycloheximide (50mg, Cat No. 01810), nalidixic acid (2.5mg, Cat. No N8878) and vancomycin (10mg, Cat. No 94747) to make the medium selective. Mix well before pouring into sterile petri plates or tubes.

For isolation of the *Campylobacter* species add steril filtered solution with 125 mg sodium pyruvate (Cat. No P2256), 125 mg sodium metabisulfite (Cat. No 71932)and 125 mg ferrous sulfate (Cat. No 44982) in 2 ml of distilled water and 5-7% sterile defibrinated sheep blood to 500 ml of medium base.

Principle and Interpretation:

This medium is also formulated to support luxuriant growth of Streptococci, Pneumococci, Listeria, *Neisseria meningitidis* and *Haemophilus influenzae*. The peptic digest of animal tissue and the casein enzymic hydrolysate provide organic nitrogen to the organisms. Yeast extract serves as a source of Vitamin B complex and dextrose is the carbohydrate source. Sodium chloride maintains the osmotic balance, while sodium bisulfite enhances growth.

Cultural characteristics after 24-72 hours at 35°C under 10% CO₂.

Organisms (ATCC)	Growth
<i>Brucella abortus</i> (4315)	+++
<i>Brucella melitensis</i> (4309)	+++
<i>Brucella suis</i> (4314)	+++
<i>Escherichia coli</i> (25922)	-
<i>Staphylococcus aureus</i> (25923)	-



References:

1. Jones, L.M., et al., Bull. World Health Organ. 19, 200 (1958)
2. Kuzdas, C.D., et al., J. Bact. 66 (4), 502 (1953)
3. Renoux, G., Ann. Inst. Pasteur. 87. (3), 325 (1954)
4. American Type Culture Collection, Manassas, Va., U.S.A.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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