

BRUCELLA AGAR w/ LAKED BLOOD, HEMIN, VITAMIN K

INTENDED USE

Remel Brucella Agar w/ Laked Blood, Hemin, and Vitamin K is a solid medium recommended for use in qualitative procedures for the isolation of anaerobic bacteria.

SUMMARY AND EXPLANATION

Brucella Agar is prepared according to the formula of the American Public Health Association.¹ Finegold et al. reported Brucella Agar base supplemented with whole or laked blood preferable to heart infusion agar supplemented with blood for cultivation of anaerobic bacteria.² Brucella Agar LKV also contains menadione (Vitamin K) and hemin for added enrichment to enhance the growth of anaerobic bacteria.^{3,4} Brucella Agar w/ Laked Blood, Hemin, and Vitamin K has been used for antimicrobial susceptibility testing of anaerobes.^{5,6}

PRINCIPLE

Casein and meat peptones supply nitrogenous substances, carbon, and sulfur required for the growth of anaerobes. Sodium chloride is a source of essential electrolytes and maintains osmotic equilibrium. Yeast extract supplies vitamins, amino acids and trace elements to enhance bacterial growth. Laked sheep blood provides growth factors required by some anaerobic bacteria and enhances the development of pigment by *Prevotella* spp. Vitamin K and hemin enhance the growth of *Bacteroides* species and gram-positive sporeformers.⁷ Agar is a solidifying agent.

REAGENTS (CLASSICAL FORMULA)*

Casein Peptone.....	15.0 g	Sodium Bisulfite.....	0.1 g
Meat Peptone.....	5.0 g	Vitamin K.....	10.0 mg
Sodium Chloride.....	5.0 g	Hemin.....	5.0 mg
Yeast Extract.....	2.0 g	Laked Sheep Blood.....	5 %
Dextrose.....	1.0 g	Agar.....	15.0 g
		Deminerlized Water.....	1000.0 ml

pH 7.0 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PROCEDURE

1. Prior to use, reduce the plates for a minimum of 24 hours by placing them in an anaerobic environment at room temperature.
2. Specimens for anaerobic culture should be inoculated onto both selective and non-selective media.
3. Inoculate the specimen as soon as possible after receipt in the laboratory.
4. Incubate the plates anaerobically for 48-72 hours at 33-37°C.
5. Confirm anaerobic growth by Gram stain and subculture to a blood agar plate incubated in ambient air.

QUALITY CONTROL

All lot numbers of Brucella Agar w/ Laked Blood, Hemin, and Vitamin K have been tested using the following quality control organisms and have been found to be acceptable. This quality control testing meets or exceeds CLSI standards.⁸ Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, patient results should not be reported.

CONTROL

**Bacteroides fragilis* ATCC® 25285
**Clostridium perfringens* ATCC® 13124
Escherichia coli ATCC® 25922
**Fusobacterium nucleatum* ATCC® 25586
**Peptococcus anaerobius* ATCC® 27337
**Prevotella melaninogenica* ATCC® 25845
Staphylococcus aureus ATCC® 25923

*CLSI recommended organism

INCUBATION

Anaerobic, up to 48h @ 33-37°C
Anaerobic, up to 48h @ 33-37°C
Ambient, 18-24h @ 33-37°C
Anaerobic, up to 48h @ 33-37°C
Anaerobic, up to 48h @ 33-37°C
Anaerobic, up to 48h @ 33-37°C
Ambient, 18-24h @ 33-37°C

RESULTS

Growth
Growth
Growth
Growth
Growth
Growth
Growth

BIBLIOGRAPHY

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Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, specimen collection, storage and transportation, materials required, quality control, and limitations.

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IFU 4012, Revised October 4, 2012

Printed in U.S.A.

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