
GC AGAR BASE

INTENDED USE

Remel GC Agar Base is a solid medium recommended for use with hemoglobin and GCHI Enrichment in qualitative procedures for isolation and cultivation of *Neisseria gonorrhoeae* and other fastidious microorganisms.

SUMMARY AND EXPLANATION

In 1945, Johnston developed a modified chocolate agar that permitted the growth of *N. gonorrhoeae* in 24 hours rather than 48 hours.¹ This accelerated growth rate was traced to differences in gel strength of media tested. Thus, GC Agar Base was developed with reduced agar content. In 1977, Thornsberry et al. used GC Agar Base in a standardized procedure to determine beta-lactamase production by *N. gonorrhoeae*.² Jones et al. recommended incorporating a modified GCHI Enrichment into GC Agar Base.³

PRINCIPLE

Casein and meat peptones provide nitrogen, amino acids, and peptides necessary for bacterial growth. Dipotassium and monopotassium phosphates are buffers which serve to control pH changes resulting from amine production; such pH changes can be detrimental to organism survival. Cornstarch neutralizes toxic fatty acids. GCHI Enrichment supplies NAD, vitamins, amino acids, coenzymes, dextrose, ferric ions, and other growth factors needed to cultivate *Neisseria* species.

REAGENTS (CLASSICAL FORMULAE)*

Casein Peptone.....	7.5 g	Corn Starch	1.0 g
Meat Peptone.....	7.5 g	Monopotassium Phosphate.....	1.0 g
Sodium Chloride.....	5.0 g	Agar.....	10.0 g
Dipotassium Phosphate	4.0 g	Demineralized Water.....	10000.0 ml

pH 7.2 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PRECAUTIONS

This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

PREPARATION OF DEHYDRATED CULTURE MEDIUM

1. Suspend 36 g of medium in 500 ml of demineralized water.
2. Heat to boiling with agitation to completely dissolve.
3. Sterilize by autoclaving at 121°C for 15 minutes or following established laboratory procedures.
4. Sterilize 500 ml of a 2% Hemoglobin solution at 121°C for 15 minutes.
5. Cool GC Agar Base and Hemoglobin solutions to 45-50°C.
6. Add 10 ml of GCHI Enrichment (REF R450411) to the GC Agar Base and then add the Hemoglobin solution.
7. Mix thoroughly and dispense into appropriate containers.

PROCEDURE

1. Consult current editions of appropriate references for the recommended procedure for sample collection and preparation, inoculation, testing, and interpretation.

QUALITY CONTROL

Each lot number of GC Agar Base has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

CONTROL

Haemophilus influenzae ATCC® 10211
Neisseria gonorrhoeae ATCC® 43069
Neisseria meningitidis ATCC® 13090
Streptococcus pneumoniae ATCC® 6305

INCUBATION

CO₂, 18-24 h @ 33-37°C
CO₂, 18-24 h @ 33-37°C
CO₂, 18-24 h @ 33-37°C
CO₂, 18-24 h @ 33-37°C

RESULTS

Good growth
Good growth
Good growth
Good growth

BIBLIOGRAPHY

1. Johnston, J. 1945. J. Vener. Dis. Inform. 26:239-241.
2. Jones, R.N., T.L. Gavan, C. Thornsberry, P.C. Fuchs, E.H. Gerlach, J.S. Knapp, P. Murray, and J.A. Washington. 1989. J. Clin. Microbiol. 27:2758-2766.
3. Isenberg, H.D. 2004. Clinical Microbiology Procedures Handbook. 2nd ed. ASM Press, Washington, D.C.

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

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