POTATO DEXTROSE AGAR pH 5.6 and pH 3.5

INTENDED USE
Remel Potato Dextrose Agar pH 5.6 and pH 3.5 are solid media recommended for use in qualitative procedures for the identification, cultivation, and enumeration of yeast and molds.

SUMMARY AND EXPLANATION
Potato Dextrose Agar is recommended by the American Public Health Association (APHA) and AOAC International (AOAC) for plate counts of yeast and molds in the examination of dairy products and foods.[1-3] This medium is commonly used in slide-culture preparations of fungi to stimulate sporulation.[4,5] It is also used to maintain stock cultures of dermatophytes. Rebell and Taplin used Potato Dextrose Agar for differentiation of atypical dermatophytes based on pigment production.[6]

PRINCIPLE
Infusion from potatoes provides a nutritious base for luxuriant development of most fungi. Dextrose is incorporated in the medium as a growth stimulant. Sterile tartaric acid may be added to this medium to lower the pH to 3.5 to inhibit bacterial growth.

REAGENTS (CLASSICAL FORMULAE)*
Potato Dextrose pH 5.6:

Dextrose	20.0 g	Agar	15.0 g
Potato Infusion Solids	4.0 g	Demineralized Water	1000.0 ml

pH 5.6 ± 0.2 @ 25°C

Potato Dextrose pH 3.5:

Dextrose	20.0 g	Tartaric Acid (10%)	14.0 ml
Potato Infusion Solids	4.0 g	Agar	15.0 g
		Demineralized Water	1000.0 ml

pH 3.5 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PROCEDURE
1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory. Selective and nonselective media should be inoculated for isolation of fungi from potentially contaminated specimens.
2. If material is being cultured directly from a swab, roll the swab over a small area of the agar surface and streak for isolation.
3. Incubate plates in ambient air at 25-30°C in an inverted position with increased humidity for 4 weeks or longer.
4. Examine plates for fungal colonies exhibiting typical color and morphology.

Pour Tube: Melt pour tube in boiling water bath and cool to 45-50°C. Mix and dispense into a sterile petri dish and proceed with the instructions above.

QUALITY CONTROL
All lot numbers of Potato Dextrose Agar pH 5.6 and pH 3.5 have been tested using the following quality control organisms and have been 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, patient results should not be reported.

CONTROL	INCUBATION	RESULTS
Candida albicans ATCC® 10231	Ambient, up to 72 h @ 25-30°C	Good growth
Cryptococcus neoformans ATCC® 34877	Ambient, up to 72 h @ 25-30°C	Good growth
Trichophyton mentagrophytes ATCC® 9533	Ambient, up to 72 h @ 25-30°C	Good growth

BIBLIOGRAPHY

1. Wehr, H.M. and J.F. Frank. 2004. Standard Methods for the Examination of Dairy Products. 17th ed. APHA, Washington, D.C.
2. Downes, F.P. and K. Ito. 2001. Compendium of Methods for the Microbiological Examination of Foods. 4th ed. APHA, Washington, D.C.
3. Food and Drug Administration. 2001. Bacteriological Analytical Manual Online. Chapter 18, Revised January 2001. Authors: Tournas, V., M.E. Stack, P.B. Mislivec, H.A. Koch, and R. Bandler. AOAC International, Gaithersburg, MD.
4. Murray, P.R., E.J. Baron, J.H. Jorgensen, M.L. Landry, and M.A. Pfaller. 2007. Manual of Clinical Microbiology. 9th ed. ASM Press, Washington, D.C.
5. Forbes, B.A., D.F. Sahm, and A.S. Weissfeld. 2007. Bailey and Scott's Diagnostic Microbiology. 12th ed. Mosby Elsevier, St. Louis, MO.
6. Rebell, G. and D. Taplin. 1970. Dermatophytes, Their Recognition and Identification. University of Miami Press, Coral Gables, FL.

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.

IFU 1695, Revised October 6, 2010

Printed in U.S.A.

remel

12076 Santa Fe Drive, Lenexa, KS 66215, USA
General Information: (800) 255-6730 Website: www.remel.com Email: remel@remel.com
Local/International Phone: (913) 888-0939 International Fax: (913) 895-4128