

TRYPTIC SOY AGAR w/ LECITHIN and POLYSORBATE 80

INTENDED USE

Remel Tryptic Soy Agar w/ Lecithin and Polysorbate 80 is a solid medium recommended for use in quantitative procedures for the detection and enumeration of microorganisms present on surfaces of sanitary importance.

SUMMARY AND EXPLANATION

In 1948, Weber and Black reported lecithin, added to an agar medium in sufficient concentration, would effectively neutralize quaternary ammonium compounds.¹ In further testing, Brummer combined lecithin and polysorbate 80 in an agar medium and reported it adequately neutralized disinfectants.² Tryptic Soy Agar (TSA) is prepared according to the formula for Soybean-Casein Digest Agar recommended in the *United States Pharmacopeia* (USP).³ TSA w/ Lecithin and Polysorbate 80 is also used in environmental air sampling procedures.

PRINCIPLE

Casein peptone and soy peptone provide essential amino acids, peptides, and nitrogenous substances necessary for the growth of bacteria. Sodium chloride is a source of essential electrolytes and maintains osmotic equilibrium. Lecithin and polysorbate 80 are added to neutralize residual compounds that may be present on the material being sampled. Agar is a solidifying agent.

REAGENTS (CLASSICAL FORMULA)*

Casein Peptone.....	15.0 g	Lecithin	0.7 g
Sodium Chloride.....	5.0 g	Polysorbate 80.....	5.0 ml
Soy Peptone.....	5.0 g	Agar	15.0 g
		Demineralized Water	1000.0 ml

pH 7.3 ± 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 45.7 g of medium in 1000 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. Dispense into appropriate containers.

PROCEDURE

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

QUALITY CONTROL

Each lot number of Tryptic Soy Agar w/ Lecithin and Polysorbate 80 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 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, sample results should not be reported.

CONTROL

Aspergillus brasiliensis ATCC® 16404
Bacillus subtilis ATCC® 6633
Candida albicans ATCC® 10231
Escherichia coli ATCC® 8739
Pseudomonas aeruginosa ATCC® 9027
Staphylococcus aureus ATCC® 6538

INCUBATION

Aerobic, up to 72 h @ 29-31°C
Aerobic, 18-24 h @ 33-37°C
Aerobic, up to 72 h @ 29-31°C
Aerobic, 18-24 h @ 33-37°C
Aerobic, 18-24 h @ 33-37°C
Aerobic, 18-24 h @ 33-37°C

RESULTS

Growth
Growth
Growth
Growth
Growth
Growth

BIBLIOGRAPHY

1. Weber, G.R. and L.A. Black. 1948. Soap and Sanit. Chem. 24:134-155.
2. Brummer, B. 1976. Appl. Environ. Microbiol. 32:80-84.
3. The United States Pharmacopeia. 2009. 32nd ed. United States Pharmacopeial Convention, Rockville, MD.

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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