



PRODUCT SPECIFICATION SHEET

Yeast Extract Agar (DM298)

Intended Use

Yeast Extract Agar (DM298) is recommended for plate count of microorganisms in water.

Product Summary and Explanation

Yeast Extract Agar is formulated according to the formula described by Windle Taylor⁽¹⁾ for the plate count of microorganisms in water. Water can contain a large number of microorganisms, particularly coming from the earth and vegetation.

Principles of the Procedure

Yeast Extract Agar contains yeast extract and peptic digest of animal tissue which provides nitrogenous compounds, vitamin B complex and other essential growth nutrients.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	5.00
Yeast extract	3.00
Agar	15.00
Final pH: 7.2 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions

1. Suspend 23 grams of the medium in one liter of distilled water.
2. Heat if necessary, to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.
4. Mix well and pour into sterile petri plates.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Yellow coloured clear to slightly opalescent gel forms in Petri plates.
Reaction of 2.3% Solution	pH : 7.2 ± 0.2 at 25°C
Gel Strength	Firm, comparable with 1.5% Agar gel

Expected Cultural Response: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Sr. No.	Organisms	Results to be achieved		
		Inoculum (CFU)	Growth	Recovery
1.	<i>Enterobacter aerogenes</i> ATCC 13048	50 -100	good-luxuriant	>=70%





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2.	<i>Escherichia coli ATCC 25922</i>	50 -100	good-luxuriant	$\geq 70\%$
3.	<i>Pseudomonas aeruginosa ATCC 27853</i>	50 -100	good-luxuriant	$\geq 70\%$
4.	<i>Staphylococcus aureus ATCC 25923</i>	50 -100	good-luxuriant	$\geq 70\%$

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

1. Prepare water sample dilutions of 1/10, 1/100, 1/1000 in 1/4-Strength Ringers solution and take aliquots to 2 parallel series of plates. Use these Inoculums within 15 min.
Pour plates: pipette 1 ml of each dilution into Petri dishes. Add 10-12 ml of molten Corn Meal Agar, cooled at 45°C, and mix thoroughly
Spread plates: spread 1ml of milk dilution over the surface of the solidified medium in a Petri dish.
2. Incubate one of the series of plates at 35-37°C for 24 hours and the other series of plates at 20-22°C for 3 days.
3. Separate counts are made of the organisms forming visible colonies after 24 hours at 35°C and the organisms forming colonies after 3 days at 20-22°C.

Results

1. Select plates containing 10-300 colonies. Results are expressed as colonies per product tested.
2. Refer appropriate references and test procedures for interpretation of results.

Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure

1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

Packaging

Product Name : Yeast Extract Agar

Product Code : DM298

Available Pack sizes : 100gm / 500gm

References

1. Taylor W. E., 1958, The Examination of Waters and Water Supplies, 7th Ed., Churchill Ltd, London, pg. 394, 778.

Further Information

For further information please contact your local MICROMASTER Representative.





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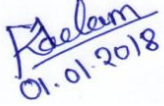

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