

Technical Information

Davis Supplemented Minimum Medium w/o Glucose

Product Code: DM 2401

Application: - Davis Supplemented Minimum Medium w/o Glucose is used for enrichment and titre determination of coliform bacteria.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	2.000
Yeast extract	2.000
Dipotassium hydrogen phosphate	7.000
Potassium dihydrogen phosphate	3.000
Ammonium sulphate	1.000
Sodium citrate.3H ₂ O	0.500
Magnesium sulphate heptahydrate	0.100
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Lederberg (1) described the Davis formulation for Minimal Davis Broth used for enrichment and titre determination of coliform bacteria. It is used for isolating nutritional mutants of coliforms. The medium contains citrate and phosphate as buffers Ammonium sulphate is the nitrogen source. Magnesium is a cofactor for many metabolic reactions.

Methodology

Suspend 30.49 grams of dehydrated media in 980 ml distilled water. Mix thoroughly & heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C. Aseptically add 20 ml of filter sterilized glucose solution (2 gms glucose dissolved in 20 ml distilled water). Shake well before pour into sterile Petri plates.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity

Yellow coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 3.05% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH Range

6.80-7.20

Cultural Response

DM2401: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Growth
Cultural Response	
<i>Enterobacter aerogenes</i> ATCC 13048	good
<i>Escherichia coli</i> ATCC 25922	good

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry date on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Leberberg. 1950. Methods in Med. Res, 3:5.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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