

EC Medium - Instructions for Use

Intended Use

BACGro™ EC Medium, when prepared as directed, is intended for the detection of coliform bacteria, and *Escherichia coli* from water and food matrices. It is not intended for use in diagnosis, treatment, or prevention of disease in humans.

Product Summary

EC Medium is a broth used for the detection of *Escherichia coli* and coliform contamination in water, milk, and other food products. EC Medium contains peptones for nutrient and vitamin sources. Lactose provides a carbohydrate component for the growth of lactose-fermenting coliforms. Lactose fermenters will produce gas upon growth. Bile Salts are an inhibitory component to inhibit the growth of Gram-positive bacteria. pH is buffered by a phosphate mixture, stabilizing it in the presence of fermentative actions. Sodium chloride maintains osmotic balance of the medium.

Formulation (per Liter)*

Casein Peptone	20.0 g
Lactose	5.0 g
Bile Salts	1.5 g
Dipotassium Phosphate	4.0 g
Monopotassium Phosphate	1.5 g
Sodium Chloride	5.0 g
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	37.0 g

*Formula may be supplemented and/or adjusted as required to meet performance criteria

Directions

1. Dissolve 37 g of EC Medium powder to 1 L of deionized water.
2. Distribute into test tubes containing inverted fermentation Durham tubes.
3. Autoclave at 121 degrees Celsius for 15 minutes.
4. Cool prior to use.

Precautions

This product is for laboratory use only and should only be used by qualified, trained laboratory personnel. Personnel should always use proper aseptic technique and observe all biohazardous precautions. All microbiological cultures should be presumed to be infectious.

Avoid ingestion, inhalation, or contact with skin and mucous membranes. If contact occurs, flush the area with clean water.

Quality Control Specifications

Gold Standard Diagnostics tests each lot of manufactured BACGro™ culture media utilizing appropriate control organisms and specifications as documented on the Certificate of Analysis. End users should perform quality control testing in accordance with government regulatory requirements and accreditation guidelines. The following specifications are routinely used for testing:

Appearance (dehydrated): Light beige, homogenous, free flowing powder, free of extraneous debris.

Appearance (prepared): Clear, light amber, with no precipitate or debris.

pH (prepared): 6.7 – 7.1 at 25°C

Organism Performance:

Strain ID	Inoculum	Incubation			Result
		Time	Temp.	Environment	
<i>E. coli</i> (ATCC® 8739)	≤100 CFU	24 - 48 hr.	44 ± 1°C	Aerobic	Growth, Gas
<i>E. coli</i> (ATCC® 25922)	≤100 CFU	24 - 48 hr.	44 ± 1°C	Aerobic	Growth, Gas
<i>E. faecalis</i> (ATCC® 29212)	>10 ⁴ CFU	24 - 48 hr.	44 ± 1°C	Aerobic	No Growth, No Gas

Limitations of the Procedure

This product is not labeled for use as a medical device, and is not intended to diagnose, treat, or prevent disease.

Due to variation in nutritional requirements, some species or strains may be encountered that grow poorly in this medium.

Further biochemical or serological testing is required for the identification of organisms grown in this medium.

Storage and Expiration

BACGro™ EC Medium should be stored at 2 – 30 degrees Celsius. Because of the hygroscopic nature of dehydrated culture media, it should be stored in a dry place and the lid should remain tightly sealed. Media should be discarded if it is not free flowing or shows discoloration.

The expiration date printed on the label is applicable to media stored as directed.

Catalog Numbers

DCM4801- EC Medium, 500g

Revision History

Revision	Description	Effective Date
04	Removed 24853; added 29212.	13-MAR-2024
03	Updating verbiage of chemical components in formulation	17-AUG-2023
02	Periodic review. No changes required.	07-MAR-2023
01	Document creation	11-DEC-2020