BACGro™ Culture Media

GOLD STANDARD DIAGNOSTICS

Tryptic Soy Broth, Modified - Instructions for Use

Intended Use

BAC*Gro*™ Modified Tryptic Soy Broth (mTSB), when prepared as directed, is intended for the selective enrichment and isolation of pathogenic *Escherichia coli* strains, including *E. coli* O157:H7, from food matrices. This product is not intended for use in the diagnosis, treatment, or prevention of disease in humans.

Product Summary

Modified Tryptic Soy Broth – abbreviated mTSB - is a nutritious, selective medium for the enrichment of pathogenic strains of *E. coli*, including *E. coli* O157:H7 and other shiga-toxin producing strains (STEC). High levels of peptones provide nutrient sources for growth promotion. Sodium chloride maintains osmotic balance of the medium. Dipotassium phosphate acts as a pH buffer. Glucose provides a carbohydrate source for fermentation processes. Bile salts provide a selective agent to inhibit the growth of Gram-positive bacteria, especially *Enterococcus* and *Staphylococcus* species.

Formulation (per Liter)*

Casein Peptone	17.0 g
Soy Peptone	3.0 g
Sodium Chloride	5.0 g
Dextrose	2.5 g
Dipotassium Phosphate	4.0 g
Bile Salts No. 3	1.5 g
Total	33.0 g/L

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

Directions

1. Add 33 g of mTSB powder to 1 L of deionized water.
2. Stir to dissolve completely.
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 BAC*Gro*™ 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 debris

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

pH (prepared): 7.2 – 7.6 at 25°C

Organism Performance:

Strain ID	Inoculum	Incubation			Result
		Time	Temp.	Environment	
E. coli (ATCC® 25922)	<100 CFU	18 – 24 hrs.	42° C	Aerobic	Growth
E. coli O157:H7 (ATCC® 35150)	<100 CFU	18 – 24 hrs.	42° C	Aerobic	Growth
E. coli (ATCC® 8739)	<100 CFU	18 – 24 hrs.	42° C	Aerobic	Growth
K. aerogenes (ATCC® 13048)	<100 CFU	18 – 24 hrs.	42° C	Aerobic	Growth
S. aureus (ATCC® 25923)	>1000 CFU	18 – 24 hrs.	42° C	Aerobic	No Growth
B. cereus (ATCC® 11778)	>1000 CFU	18 – 24 hrs.	42° C	Aerobic	No Growth
E. faecalis (ATCC® 29212)	>1000 CFU	18 – 24 hrs.	42° C	Aerobic	No Growth

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

BAC*Gro*™ Modified Tryptic Soy Broth 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

DCM1505- Tryptic Soy Broth, Modified, 5kg
DCM1510- Tryptic Soy Broth, Modified, 10kg

Revision History:

Revision	Description	Effective Date
03	Updated incubation temp. to 42° C to match PWS	13-MAR-2024
02	Periodic review. No changes required.	07-MAR-2023
01	Document creation	09-OCT-2020