BAC*Gro*™ Culture Media

GOLD STANDARD DIAGNOSTICS

MacConkey Agar w. Sorbitol - Instructions for Use

Intended Use

BAC*Gro*™ MacConkey Agar w. Sorbitol (sMAC), when prepared as directed, is used as a partially selective and differential media for the isolation of *E. coli* O157:H7. It is not intended for use in diagnosis, treatment, or prevention of disease in humans.

Product Summary

The formulation of BAC*Gro*™ sMAC is comprised of peptones to provide nutrient sources. D-sorbitol is a fermentable carbohydrate that aids in the differentiation of *E. coli* O157:H7 from other *E. coli* strains; non-fermenters (O157:H7) will remain colorless, while sorbitol-fermenters will turn pink. Bile salts and Crystal violet act as selective agents to inhibit the growth of Gram-positive organisms. Neutral red is a pH indicator.

Formulation (per Liter)*

Gelatin Peptone	17.0 g
Casein Peptone	1.5 g
Peptic Digest of Animal Tissue	1.5 g
Sorbitol	10.0 g
Bile Salts	1.5 g
Sodium Chloride	5.0 g
Neutral Red	0.03 g
Crystal Violet	0.001 g
Agar	13.5 g
Total	50.0 g/L

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

Directions

1. Add 50 g of sMAC powder to 1 L of deionized water.
2. Stir while heating. Bring to a brief boil to dissolve completely.
3. Autoclave at 121 degrees Celsius for 15 minutes.
4. Cool and pour into plates.

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): Pink-beige, homogenous, free flowing powder, free of debris.

Appearance (prepared): Red-purple and slightly opalescent.

pH (prepared): 6.9 – 7.3 at 25°C

Organism Performance:

Strain ID	Inoculum	Incubation			Result
		Time	Temp.	Environment	
E. coli (ATCC® 25922)	<100 CFU	18 – 24 hr.	37° C	Aerobic	Growth, Pink Colonies
E. coli O157:H7 (ATCC® 35150)	<100 CFU	18 – 24 hr.	37° C	Aerobic	Growth, Colorless Colonies
E. coli O157:H7 (ATCC® 700728)	<100 CFU	18 – 24 hr.	37° C	Aerobic	Growth, Colorless Colonies
S. aureus (ATCC® 25923)	>10,000 CFU	18 – 24 hr.	37° C	Aerobic	No Growth
E. faecalis (ATCC® 29212)	>10,000 CFU	18 – 24 hr.	37° 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*™ MacConkey Agar w. Sorbitol 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

DCM4301 – MacConkey Agar w. Sorbitol, 500g
DCM4305 – MacConkey Agar w. Sorbitol, 5kg
DCM4310 – MacConkey Agar w. Sorbitol, 10kg

Revision History:

Revision	Description	Effective Date
04	Adding DCM4310 under Catalog Number	22-NOV-2023
03	Adding DCM4305 under Catalog Number	03-AUG-2023
02	Periodic review. No changes required.	07-MAR-2023
01	Document creation	21-DEC-2020