BACGro™ Culture Media

GOLD STANDARD DIAGNOSTICS

Violet Red Bile Agar - Instructions for Use

Intended Use

BAC*Gro*™ Violet Red Bile Agar (VRBA), when prepared as directed, is intended for the detection and enumeration of coliform bacteria from food and dairy products. BAC*Gro*™ VRBA conforms to ISO 11133:2014.

Product Summary

Violet Red Bile Agar contains peptone to provide vitamins and minerals, as well as a carbon and nitrogen source. Yeast extract promotes bacterial growth by supplying B-complex vitamins. Lactose provides a carbohydrate source. Bile salts and crystal violet aid in the inhibition of Gram-positive bacteria. Neutral red is a pH indicator in which glucose-fermenters will produce red colonies and halos (due to bile precipitation). Sodium chloride preserves osmotic balance. Agar is a solidifying agent.

VRBA may also be formulated with 4-methylumbelliferyl-β-glucuronidase (MUG) for the detection glucuronidase activity. *E. coli* hydrolyzes MUG with the use of the enzyme glucuronidase. The hydrolyzation of MUG produces a fluorescent compound that may be detected with UV light at 366 nm.

Formulation (per Liter)*

Peptone	7.0 g
Yeast Extract	3.0 g
Lactose	10.0 g
Bile Salts No. 3	1.5 g
Sodium Chloride	5.0 g
Neutral Red	0.03 g
Crystal Violet	0.002 g
Agar	15.0 g
Total	41.5 g/L

(Media containing MUG at 0.10 g/L is also available)

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

Directions

1. Add 41.5 g of VRBA powder (41.6 g VRBA w. MUG) to 1 L of deionized water.
2. Stir while heating. Bring to a brief boil to dissolve completely.
3. **DO NOT AUTOCLAVE**.

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, free-flowing, homogenous. May contain dark particles.

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

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	22 - 26 hr.	35° C	Aerobic	Growth, pink-red colonies.*
E. coli (ATCC® 8739)	<100 CFU	22 - 26 hr.	35° C	Aerobic	Growth, pink-red colonies.*

P. aeruginosa (ATCC® 9027)	>1000 CFU	22 - 26 hr.	35° C	Aerobic	Growth, colorless colonies.
E. faecalis (ATCC® 19433)	>1000 CFU	22 - 26 hr.	35° C	Aerobic	No growth
E. faecalis (ATCC® 29212)	>1000 CFU	22 - 26 hr.	35° C	Aerobic	No growth

***E. coli* may produce halos of bile precipitate surrounding colonies.

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*™ VRBA 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

DCM4001 – Violet Red Bile Agar, 500g
DCM4101 – Violet Red Bile Agar w. MUG, 500g