

VRBG Agar

Catalog : HB0176-5

VRBG Agar(VRBGL) is used for detecting and enumerating Enterobacteriaceae in food and dairy products.

Approximate Formula:

Ingredients	gm/liter
Pancreatic Digest of Gelatin	7.0
Yeast Extract	3.0
Sodium Chloride	5.0
Glucose	10.0
Bile Salts No.3	1.5
Crystal Violet	0.002
Neutral Red	0.03
Lactose	10.0
Agar	15.0
Final pH 7.4±0.2 at 25°C	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 51.5g of the medium in one liter of deionized or distilled water. Heat with frequent agitation and boiling not more than two minutes to completely dissolve the powder. DO NOT AUTOCLAVE.

Principle and Interpretation:

Pancreatic digest of gelatin and yeast extract provides source of carbon, nitrogen, and other essential growth nutrients. Sodium chloride maintains the osmotic equilibrium of the medium. Lactose and glucose serves as the source of energy by being the fermentable carbohydrate. Bile salts No.3 and crystal violet can inhibit other Gram-positive bacteria. Neutral red serves as indicators. Agar is the solidifying agent.

Appearance:

Dehydrated medium is a free-flowing light red powder. The prepared medium is a kind of purple red transparent gel.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

VRBG Agar(VRBGL) must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 36±1°C for 18-24 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Remarks
<i>Staphylococcus aureus</i>	ATCC 6538	> 10 ³	Inhibited	/	/
<i>Escherichia coli</i>	ATCC 25922	20-200	Luxuriant	≥70%	Purple red with red precipitation around colonies
<i>Salmonella typhimurium</i>	ATCC 14028	20-200	Luxuriant	≥70%	Purple red with red precipitation around colonies
<i>Shigella flexneri</i>	ATCC 12022	20-200	Luxuriant	≥70%	Purple red with red precipitation around colonies

References:

- 1.European Pharmacopoeia 6.0
- 2.Hitchins, A.D., P.A. Hartman, and E.C.D. Todd. 1992. Coliforms – *Escherichia coli* and its toxins, p. 325-369. In Vanderzant, C., and D.F. Splittstoesser(ed.) Compendium of methods for the microbiological examination of foods, 3rd ed. American Public Health Association, Washington, DC..