VRBA Agar Catalog : HB0114-6-5K

VRBA Agar(Violet Red Bile Agar) is used for the detection and enumeration of coliforms in milk, food and other materials.

Approximate Formula:

Ingredients	gm/liter
Peptone	7.0
Yeast Extract	3.0
Sodium Chloride	5.0
Lactose	10.0
Bile Salts No.3	1.5
Crystal Violet	0.002
Neutral Red	0.03
Agar	15.0

Final pH 7.4±0.2 at 25℃

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

Directions:

Suspend 41.5g of the medium in one liter of deionized or distilled water. Mix well and heat with frequent agitation. Boil for one minute. Cool to 45-50 ℃ and pour into petri dishes. DO NOT AUTOCLAVE.

Principle and Interpretation:

VRBA Agar is used for the detection and enumeration of coliforms in milk, food and other materials. VRBA is a differential and mildly selective medium for the detection of coliforms in water as well as milk and other food materials.

The colonies of lactose-fermenting bacteria are red in color whose size depends on the number of colonies on the plate. Occasionally the cocci of the intestinal tract can develop as small, punctiform red colonies.

Peptone and yeast extract provides source of carbon, nitrogen, and other essential growth nutrients. Sodium chloride maintains the osmotic equilibrium of the medium. Lactose 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.

Appearance:

Dehydrated medium is a free-flowing light red powder. The prepared medium is a kind of purplish 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:

VRBA Agar 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:

Inoculate and incubate at 36±1 ℃ for 18-24 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Remarks
Enterococcus faecalis	ATCC 29212	100-1000	inhibited	<1%	/
Escherichia coli	ATCC 25922	20-200	luxuriant	≥70%	Purple red with red precipitation around colonies
Citrobacter freundii	ATCC 43864	20-200	luxuriant	≥70%	Purple red with red precipitation around colonies
Enterobacter cloacae	ATCC 23355	20-200	luxuriant	≥70%	Purple red with red precipitation around colonies

Reference

1. GB4789.28-2013 People's Republic of China food safety national standard food microbiology test medium and reagent quality requirements.
2. Eaton A. D., Clesceri L. S. and Greenberg A. E., (Ed.), 1998, Standard Methods for the Examination of Water and Wastewater, 20th Ed., American Public Health Association, Washington, D.C.4.Friedman M. P. et al, 1991, J. Clin. Microbiol., 29:2385-2389.

Qingdao Hope Bio-Technology Co ., Ltd ., China Tel:-86+532-66087711 E-mail:qdhbywg@vip.126.com http://www.hopebiol.com