Modified Giolitti and Cantoni Broth

Catalog : HB4127-1-5K

Modified Giolitti and Cantoni Broth is used for the enrichment of Staphylococcus aureus.

Approximate Formula:

Ingredients	gm/liter
Peptone	10.0
Beef Extract	5.0
Yeast Extract	5.0
Glycine	1.2
Lithium Chloride	5.0
Sodium Chloride	5.0
Mannitol	20.0
Sodium Pyruvate	3.0
Tween 80	1.0

Final pH6.9±0.2 at 25℃

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

Directions:

Suspend 55.2g of the medium in 1000ml of deionized or distilled water. Mix well and heat with frequent agitation to completely dissolve the powder. Dispense 9ml aliquots into 15*150mm test tubes. Sterilize in an autoclave at 121℃(15 lbs.)for 15 minutes. When cooling to 50℃,add 0.1ml of filtration sterilized 1% potassium tellurite solution to each tube. Mix well.

Principle and Interpretation:

Peptone and beef extract provide sources of carbon, nitrogen, vitamins and minerals. Yeast extract supplies B-complex vitamins for bacterial growth. D-Mannitol is the carbohydrate source. Sodium pyruvate stimulates growth of staphylococci. Lithium chloride inhibits gram-negative bacilli. Added Tellurite Solution 1% supplies potassium tellurite, which in combination with glycine, inhibits gram-positive bacteria other than staphylococci. Tween 80 acts as an emulsifier.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of yellowish transparent liquid.

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:

Modified Giolitti and Cantoni Broth 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 35±2℃ for 40-48 h.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Remarks
Escherichia coli	ATCC 25922	$>10^3$	Inhibited	/
Staphylococcus Aureus	ATCC 6538	100-1000	Luxuriant	Black
Staphylococcus Aureus	ATCC 25923	100-1000	Luxuriant	Black
Micrococcus luteus	ATCC 10240	$>10^3$	Inhibited	/

References:

1.Giolitti and Cantoni. 1966. J. Appl. Bacteriol. 29:395.

2.Mossel, Harrewijn and Elzebroek. 1973. UNICEF.

3.International Organization for Standardization. 2003. Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of coagulase-positive staphylococci – Part 3: Detection and MPN technique for low numbers. ISO 6888-3, 2003-03-15. ISO, Geneva, Switzerland.

4 Downes and Ito (ed.). 2001. Compendium of methods for the microbiogical examination of foods,4th ed. American Public Health Association, Washington, D.C.

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