

Technical Information

Buffered Glycerol Saline Base

Product Code: DM 1204

Application: Buffered Charcoal Yeast Extract Agar Base with added supplements is used for selective cultivation of *Legionella* species from clinical and other specimens.

Composition**

Ingredients	Gms / Litre
Sodium chloride	4.200
Dipotassium phosphate	3.100
Monopotassium phosphate	1.000
Phenol red	0.003
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Specimens which can't be processed immediately after collection, or those which need to be sent to a peripheral reference ⁽⁴⁾ laboratory, should be preserved immediately to maintain the viability of the specimens. In general, most specimens should be processed in the laboratory within 1 to 2 hours after collection. Buffered Glycerol Saline Base was first reported by Teague and Clurman ⁽¹⁾ and later modified by Sachs ⁽²⁾. Buffered Glycerol Saline is used mainly for collection and transportation of faecal specimens ⁽³⁾. The medium contains sodium chloride, which provides essential ions. Dipotassium and monopotassium phosphate provides buffering to the medium. Phosphate buffers along with glycerol are used to recover pathogenic bacteria ⁽⁶⁾. Prepared medium should have a light pink colour indicating slightly alkaline pH. If the medium turns yellow i.e. acidic then it should be discarded because of unfavorable effect on dysentery bacilli if they are present in the specimens ⁽⁵⁾.

Methodology

Suspend 8.3 grams of powder media in 700 ml distilled water. Add 300 ml of glycerol. Shake well & heat to dissolve the medium completely. Mix well and dispense in screw capped tubes or suitable containers. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Light yellow to pink homogeneous free flowing powder

Colour and Clarity of prepared medium

Light pink coloured, clear solution without any precipitate

Reaction

Reaction of aqueous solution (0.83 gms in 70 ml distilled water) at 25°C. pH : 7.2±0.2

pH range 7.00-7.40

Cultural Response/Characteristics

DM1204: Cultural characteristics observed with added Glycerol (30 ml), after an incubation at 35-37°C for 18-24 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Growth
<i>Neisseria meningitidis</i> ATCC 13090	good-luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	good-luxuriant
<i>Staphylococcus epidermidis</i> ATCC 12228	good-luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6303	good-luxuriant

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

1. Teague and Clurman, 1916, J. Inf. Dis., 18:653.
2. Sachs, 1939, J. Roy Arury Med. Corp., 73 :235.
3. Edwards and Ewing, 1962, Identification of Enterobacteriaceae, Burgess Publ. Co. Minneapolis, Minn.
4. Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C., Winn W. C. Jr., 1992, Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippincott Company
5. Diagnostic Procedures and Reagents, 1963, 4th Ed., American Public Health Association, Inc., New York.u

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