Bile Broth

Intended Use
Bile Broth is used for the cultivation of members of *Enterobacteriaceae.*

Summary
Enterobacteriaceae inhabit a wide variety of niches that include the human gastrointestinal tract and various environmental niches. When blood samples from a patient with suspected enteric fever is submitted for the Widal test, it is useful as a routine to culture the clot after separation of serum. If it is known that the blood has been withdrawn with strict aseptic precautions, the clot may be placed in a wide tube half-filled with broth, or in a wide mouth screw capped bottle containing 80 mL of broth. When there is any doubt regarding the presence of contaminating organisms, and this is always a possibility when blood specimens are sent to the laboratory from a distance, the clot should be transferred directly to a tube of sterile ox bile and disintegrated with aseptic precautions. After overnight incubation the bile culture is examined for enteric organism in the usual manner. A method of clot culture with streptokinase has been recommended wherein blood is allowed to clot in 5 mL quantities in sterile screw-capped universal containers. The separated serum is removed and 15 mL of 0.5% Bile Broth with streptokinase 100 units/mL is added to each bottle. The streptokinase causes rapid clot lysis with release of bacteria trapped in the clot.

Principle
Peptic digest of animal tissue serves important sources of nitrogen. Sodium taurocholate inhibits majority of gram-positive species. Sodium chloride maintains the isotonicity of the medium whereas addition of streptokinase solution causes rapid clot lysis with release of bacteria trapped in the clot.

Formula*
Ingredients	**g/L**
Peptic Digest of Animal Tissue	20.0
Sodium Taurocholate	5.0
Sodium Chloride	5.0
Final pH (at 25°C)	7.6 ± 0.2

*Adjusted to suit performance parameters

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2ºC-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen
Clinical samples – Blood

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 30.00 g of the powder in 1000 mL purified / distilled water.
2. Heat if necessary, to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. Cool to 40°C and add 1 mL of Streptokinase solution (100000 units/mL).
5. Mix well and dispense as desired.

Quality Control

Dehydrated Appearance: Cream to yellow coloured, homogenous free-flowing powder.
Prepared Appearance: Light Yellow to yellow coloured, clear solution without any precipitate.
Cultural Response: Cultural characteristics observed after an incubation for 18-48 hours at 35°C-37°C.

Organisms (ATCC)	Growth
Escherichia coli (25922)	Good
Klebsiella aerogenes (13048)	Good
Salmonella Typhi (6539)	Good
Staphylococcus aureus subsp. *aureus* (25923)	Inhibited

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Colle, J.G., Duguid J.P., Fraser A.G. and Marmion, B.P. (Eds.) 1989 Mackie and McCartney Practical Medical Microbiology, Vol. 2, p:134 Longman Group, UK.
2. Watson, K.C. 1955, Isolation of Salmonella Typhi from the blood stream. J. of, Lab and Clinical Medicine 46:128-134.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201020100500	Dehydrated Culture Media	500 g
203020460005	Ready Prepared Tube	50 x 5 mL
203020460050	Ready Prepared Tube	50 mL