Burkholderia Cepacia Agar Base

Intended Use
Burkhloderia cepacia Selective Agar base is a medium used for the selective detection and isolation of *Burkholderia cepacia* complex from non-sterile and aqueous products.

Summary
Burkholderia cepacia (formerly known as *Pseudomonas cepacia*) is a motile aerobic oxidase positive Gram-negative bacillus commonly found in liquid reservoirs and moist environments. It is an important opportunistic pathogen and causes pulmonary infection among individuals with cystic fibrosis (CF). *B. cepacia* is difficult to isolate on routinely used laboratory media like *Escherichia coli*, *Staphylococcus aureus* and *Pseudomonas Aeruginosa.* Burkholderia Cepacia Agar Base is a selective medium especially formulated for the isolation of *Burkholderia cepacia* (*Pseudomonas cepacia*), from clinical and non-clinical specimens. The medium is made selective for *B. cepacia* by the incorporation of bile salts, crystal violet and antibiotics which includes Polymyxin B, Gentamycin, Ticarcillin in the form of freeze-dried supplement (FD).

Principle
The medium contains peptone and yeast extract which is a source of nitrogen, vitamin B and other essential nutrients. Crystal violet, bile salts and antimicrobial agents are used as selective agents. Crystal violet and bile salts inhibits gram-positive cocci including Enterococci and Staphylococci. The antibiotics (FD) namely ticarcillin, polymyxin B and gentamycin inhibit Gram-negative bacteria. *B. cepacia* metabolizes pyruvate forming alkaline end products. These end products elevate the pH of the medium. The phenol red indicator changes colour from pink orange to pink red in alkaline pH.

Formula*

Ingredients	**g/L**
Peptone	5.0
Yeast Extract	4.0
Sodium Pyruvate	7.0
Potassium Dihydrogen Phosphate	4.4
Disodium Hydrogen Phosphate	1.4
Bile Salts	1.5
Ammonium Sulphate	1.0
Magnesium Sulphate	0.2
Ammonium Ferrous Sulphate	0.01
Phenol Red	0.02
Crystal Violet	0.001
Agar	12.0
Final pH (at 25°C)	6.2 ± 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 – Throat, sterile body fluids.

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.

Direction

1. Suspend 18.26 g of the powder in 500 mL purified / distilled water.
2. Heat to boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. Cool to 50°C and aseptically add the rehydrated contents of 1 vial of Burkholderia Selective Supplement (204020690005).
5. Mix well and pour in sterile Petridishes.

Quality Control

Dehydrated Appearance: Light yellow to pink coloured, homogenous free flowing powder.
Prepared Appearance: Yellowish orange coloured, clear to slightly opalescent gel forms in petridishes.
Cultural Response: Cultural characteristics observed, with addition of Burkholderia Selective Supplement after an incubation of at 35°C-37°C for 48-72 hours.

Organisms (ATCC)	**Growth**	**Colour of colony**
Burkholderia cepacia (25608)	Good	sage green colonies with bright pink medium
Pseudomonas aeruginosa (9027)	Inhibited	-

Interpretation of Results

After the incubation, typical colonies of *B. cepacia* on Burkholderia Cepacia Agar Base Medium are pale yellowish to rose, surrounded by rose to pink-red zones.

Performance and Evaluation

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

1. Directions
2. Storage
3. Expiry

Precautions/Limitations

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
3. further biochemical tests must be carried out for conformation.

Warranty

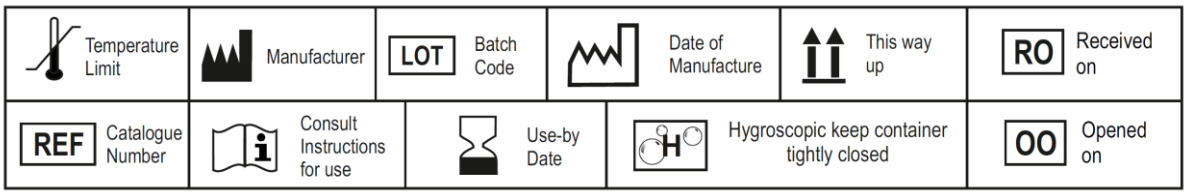
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Gilligan, P.H. 1991. Microbiology of airway disease in patients with cystic fibrosis. Clin. Microbiol. Rev. 4: 35-51United States Pharmacopeial Convention, Inc. 2001. The United States pharmacopeia 25/The national formulary 20 – 2002. United States Pharmacopeial Convention, Inc., Rockville, Md.
2. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W.(2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1
3. Gilligar, Gage, Bradshaw, schidlow and Deciscco, 1985, J. Clin. Microbiol., 22
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201020420500	Dehydrated Culture Media	500 g



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.