TM 2262 – OFPBL AGAR BASE (OXIDATION FERMENTATION POLYMYXIN BACITRACIN LACTOSE AGAR BASE)

INTENDED USE

With Polymyxin and Bacitracin is recommended for the selective isolation of *Burkholderia cepacia* from clinical specimens as well as non-clinical samples.

PRODUCT SUMMARY AND EXPLANATION

Burkholderia cepacia is an opportunistic pathogen generally associated with nosocomial infections. The ability of this pathogen to survive for extended period of time in hostile environments, it is found in such widely varied and inhibitory items such as equipment, medications, mouthwash and disinfectants. Nosocomial infections caused by this organism include bacteremia, urinary infections, and respiratory infections. However, the most serious implication is when identified in patients with Cystic Fibrosis as they have a predisposition for infection and infected patients, if untreated, show a rapid decline in lung function, frequent bacteremia, and death due to lung failure. It is also reported to be a primary cause of bacteremia, pneumonia, and death in the Chronic granulomatous disease CGD patient population. Therefore, it is critical that isolation and proper identification be fast and accurate. *Burkholderia Cepacia* Agar as well as OFPBL Agar Base is recommended for isolation of *Burkholderia cepacia* from clinical specimens.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	2.000
Dipotassium hydrogen phosphate	0.300
Sodium chloride	5.000
Lactose	10.000
Bromothymol Blue	0.030
Agar	15.000

PRINCIPLE

The medium consists of Tryptone which provides necessary nitrogenous compounds and lactose serves as carbohydrate source. Lactose is readily utilized by *Burkholderia cepacia*. The fermentation of lactose results in the release of acid end products which is detected by the pH indicator, bromothymol blue, present in the medium. When sufficient acid is produced the medium changes from green to yellow providing the colonies their yellow coloration. Dipotassium hydrogen phosphate in the medium buffers the medium well. Sodium chloride helps to maintain osmotic balance. The selectivity of the medium owes itself to the presence of the antibiotics polymixin B and bacitracin together these antibiotics provide good suppression of the bacterial flora present in respiratory secretions and sputum (for the inhibition of gram-positive organisms and *Neisseria*).

INSTRUCTION FOR USE

- Dissolve 32.33 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Aseptically add rehydrated contents of one vial of OFPBL Selective Supplement.
- Mix well and pour into sterile Petri plates or as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Yellow to yellowish green coloured homogeneous free flowing powder.
Appearance of prepared medium : Green coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 6.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of the colony	Incubation Temperature	Incubation Period
Staphylococcus aureus subsp. aureus	25923	50-100	Good-luxuriant	>=50%		30-35°C	48-72 Hours
Escherichia coli	25922	50-100	Inhibited	0%	--	30-35°C	48-72 Hours
Burkholderia cepacia	25416	50-100	Inhibited	0%	Yellow w/ yellow halo	30-35°C	48-72 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

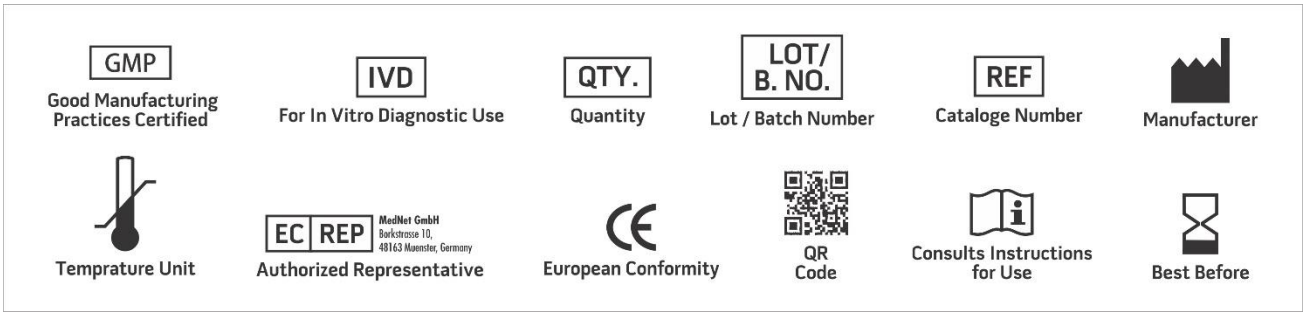
DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Carson, L.A.et.al. 1988. J. Clin.Microbiol. 25:1730-1734.
2. Tablan, O.C., et.al.1987. J. Clin.Microbiol. 25:485-487.
3. Welch DF, Muszynski M. J, Pai CH, Marcon MJ, Hribar MM, Gilligan PH, Matsen JM, Ahlin PA, Hilman BC, Chartrand SA. 1987. J. Clin.Microbiol; 25:1730-4.
4. Christenson, J.C., et.al 1989. J. Clin. Microbiol.27: 270-273.
5. 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.

6. Gilligan, P. H. and P. Vandamme, 2003. Misc. Gram Negative Bacteria, pp 729-748. In Murray, P. R., et al., Manual of Clinical Microbiology, 8th ed., American Society for Microbiology, Washington D.C., 2003.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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