MYP Agar (Phenol Red Egg Yolk Polymyxin Agar Base)

Intended Use
MYP Agar Base with added supplements is used for isolation and identification of pathogenic Staphylococci and *Bacillus* species.

Summary
Mannitol Yolk Polymyxin (MYP) Agar was formulated by Mossel *et al., and* is recommended by APHA for enumeration of *Bacillus cereus*. When present in large numbers in certain foodstuffs, *Bacillus cereus* can produce metabolites responsible for the clinical symptoms of food poisoning. MYP Agar Base is recommended by BIS for isolation and enumeration of *Bacillus cereus*.

Principle
The medium contains peptic digest of animal tissue and cara meat extract which provide nitrogen source. Mannitol fermentation can be detected with the phenol red, which yields yellow colour to the mannitol fermenting colonies. Added egg yolk emulsion helps in differentiation of lecithinase producing colonies which are surrounded by a zone of white precipitate. Addition of Polymyxin B Sulphate helps to restrict growth of Gram-negative bacteria such as *Escherichia coli* and *Pseudomonas aeruginosa*. These differentiating media allow differentiation of *Bacillus cereus* from other *Bacillus* species by its inability to ferment mannitol and poor sporulation. Acid produced by organisms other than *Bacillus cereus* often diffuse through the medium, making it difficult to distinguish between mannitol fermenters and non-fermenters. So, it is advised to transfer the suspected colonies to a fresh medium to ascertain the true reaction.

Formula*

Ingredients	**g/L**
Peptic Digest of Animal Tissue	10.0
Cara Meat Extract#	1.0
D-Mannitol	10.0
Sodium Chloride	10.0
Phenol Red	0.025
Agar	15.0
Final pH (at 25°C)	7.2 ± 0.1

*Adjusted to suit performance parameters.
Equivalent to Meat Extract

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-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 – Faeces, Food and Water samples

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 46.03 g of the powder in 900 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 55°C aseptically add sterile Polymyxin B Selective Supplement (204160710005) solution to a final concentration of 100 units per mL and 100 mL sterile Egg Yolk Emulsion (204050370100) per 1000 mL medium. Mix well and pour into sterile petridishes.

Quality Control

Dehydrated Appearance: Light yellow to light pink coloured, homogenous, free flowing powder.
Prepared Appearance: Basal medium: Red coloured, clear to slightly opalescent gel.
After addition of Egg Yolk Emulsion: Light orange coloured opaque gel forms in petridishes.
Cultural Response: Cultural characteristics observed with added Egg Yolk Emulsion (204050370100) and Polymyxin B Selective Supplement (204160710005) after an incubation at 32°C for 18-40 hours.

Organism (ATCC)	Growth	Colour of Colony	Lecithinase activity
Bacillus cereus (10876)	Good	Light pink	Positive, opaque zone around the colony
Bacillus spizizenii (6633)	Good	Yellow	Negative
Escherichia coli (25922)	Complete Inhibition	-	-
Proteus mirabilis (25933)	Good	Light pink	Negative
Pseudomonas aeruginosa Strain Boston 41501 (27853)	Complete Inhibition	-	-
Staphylococcus aureus subsp. *aureus* (25923)	Good	Yellow	Positive, opaque zone around the colony

Performance and Evaluation

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

1. Directions
2. Storage
3. Expiry

Warranty

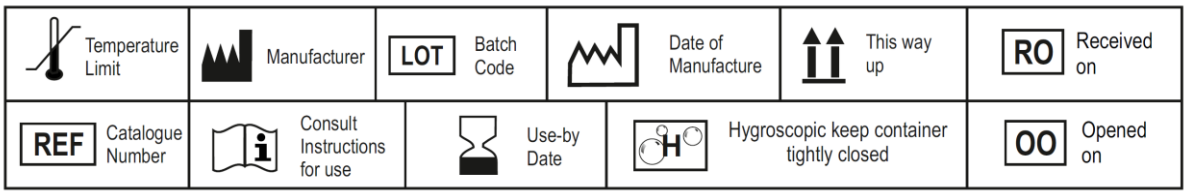
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Mossel D.A.A., Koopman M.J. and Jongerium E., 1967, Appl. Microbiol, 15:650.
2. Vanderzant C. and Splittstoessr D. (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C.
3. Nygren B., 1962, Acta Path. Microbiol. Scand., 56 : Suppl. 1.
4. Bureau of Indian Standards, IS : 5887, (Part IV) 1976.
5. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201130100500	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.