

## Product Information

### M1928 MYP Agar Base (Mannitol Egg Yolk Polymyxin Agar Base)

MYP Agar Base with added supplements is used for the isolation and identification of the *Bacillus* species and pathogenic Staphylococci. It is recommended by the American Public Health Association (APHA) for enumeration of *Bacillus cereus*.

#### Composition:

Ingredients	Grams/Litre
Peptic Digest of Animal Tissue	10.0
Meat Extract	1.0
D-Mannitol	10.0
Sodium Chloride	10.0
Phenol Red	0.025
Agar	15.0
Final pH 7.1 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C.

Appearance: Light pink colored, homogeneous, free flowing powder.  
Gelling: Firm  
Color and Clarity: Red colored, clear to slightly opalescent gel forms in the basal medium. With the addition of Egg Yolk Emulsion, a light orange colored opaque gel forms in the petri plates.

#### Directions:

Suspend 46 g of MYP Agar Base in 900 ml of distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes. Cool to 55°C. Aseptically add sterile Polymyxin B Selective Supplement (P9602) to a final concentration of 100 units per ml. Add 100 ml of sterile Egg Yolk Emulsion (Fluka 17148) per 1000 ml of medium. Mix well and pour into sterile petri plates.

#### Principle and Interpretation:

The medium contains the peptic digest of animal tissue and meat extract which supply nitrogen. Mannitol fermentation can be detected with phenol red, which results in a yellow color being present in the mannitol fermenting colonies. Egg Yolk Emulsion helps in the differentiation of lecithinase producing colonies, which are surrounded by a zone of white precipitate. The addition of polymyxin B supplement helps to restrict growth of gram negative bacteria.

Cultural characteristics after 18-40 hours at 35-37°C.

Organisms (ATCC)	Growth	Color of Colony	Lecithinase (+ = haloes around the colonies)
<i>Bacillus subtilis</i> (6633)	+++	yellow	-
<i>Bacillus cereus</i> (10876)	+++	red	+
<i>Proteus mirabilis</i> (25933)	+++	red	-
<i>Staphylococcus aureus</i> (25923)	+++	yellow	+
<i>Escherichia coli</i> (25922)	-/+	-	-
<i>Pseudomonas aeruginosa</i> (27853)	-/+	-	-

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### References:

1. Mossel, D.A. A., et al., (1967). Appl. Microbiol. 15,650.
2. Compendium of Methods for the Microbiological Examination of Foods, (1992). Vanderzant, C., et al., eds. 3rd Edition. APHA. Washington, D.C.
3. Nygren, B., (1962). Acta Path. Microbiol. Scand. 56 Suppl. 1.