

MacConkey Agar No. 2 CE (NCM2024)

Intended Use

MacConkey Agar No.2 is a modification of MacConkey Agar which contains bile salts No. 2 for the recognition of Enterococci.

Description

This agar especially useful when looking for Enterococci in the presence of coliforms and non-lactose fermenters from water, sewage and food products. Enterococci are frequently sought as an index of fecal pollution and appear on this medium as small, intensely colored red-purple colonies. Non-lactose fermenters appear colorless, whilst bile tolerant Gram-positive organisms, such as *Staphylococci* and non-fecal *Streptococci*, are completely inhibited.

Typical Formulation

Peptone	20.0 g/L
Lactose	10.0 g/L
Bile Salts No. 2	1.5 g/L
Sodium Chloride	5.0 g/L
Neutral Red	0.05 g/L
Crystal Violet	0.001 g/L
Agar	15.0 g/L

Final pH: 7.2 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precaution

Refer to SDS

Preparation

1. Disperse 51.6g of powder in in one liter of distilled water.
2. Allow to soak for 10 minutes, swirl to mix and sterilize by autoclaving for 15 minutes at 121°C.
3. Cool to 45-50°C and mix well before dispensing into Petri dishes. Dry the agar surface prior to use.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free-flowing and beige.

Prepared Appearance: Prepared medium is a clear, red-purple gel.

Expected Cultural Response: Cultural response after incubation at 37°C ± 1°C for 18-48 hours.

Microorganism	Approx. Inoculum (CFU)	Expected Results	
		Recovery	Reaction
<i>Escherichia coli</i> ATCC® 25922	50-200	>50%	Red/Purple colonies
<i>Enterococcus faecalis</i> ATCC® 29212	50-200	>50%	Red/Purple colonies
<i>Salmonella</i> Typhimurium ATCC® 14028	4Q streak	Good Growth	Colourless Colonies
<i>Staphylococcus aureus</i> ATCC® 25923	>10 ³	Inhibited	N/A

Results

Lactose fermenting organisms grow as pink colonies whilst non-lactose fermenting organisms grow as colorless or clear colonies. Enterococci present small (~0.5 mm) intense red colonies.

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing or appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.


Limitations of the Procedures

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Storage

Store dehydrated culture media at 2-30°C away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

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