

# **CERTIFICATE OF ANALYSIS**

**MACCONKEY AGAR (MCA)** 

Without Crystal Violet and with 0.15% Bile Salts CMB0166S, CMB0166M

## FOOD, DAIRY, CLINICAL, & WATER TESTING

Product Description:MacConkey Agar (MCA) Without Crystal Violet, and with 0.15% Bile SaltsCat. No.:CMB0166MPack Size:500gMfg. Date:01/2025Exp. Date:12/2029Release Date:29/01/25Lot. No.:1660125/01Storage: $25^{\circ}$ C  $\pm 2.5^{\circ}$ C (Store in a cool and dry place, away from Sunlight)

#### **TYPICAL FORMULA\***

Components	Gram/Liter	Requirement (g/l): 51.5g
Peptone	17.0 g	
Protease Peptone	3.0 g	
Bile Salts	1.5 g	
Sodium Chloride (NaCl)	5.0g	
Neutral Red	0.03g	
Agar	15.0 g	
рН	$7.4 \pm 0.2$ at 25°C	

<sup>\*</sup> Formula adjusted to meet performance and quality parameters

### **QUALITY CONTROL**

Parameters	Specification	Results	
Dehydrated format	Light Pink beige colored, free-flowing powder	Light-Pink	
Post-reconstitution	Moderate to dark Pink Purple, opalescent gel	Pink Purple	
Clarity	Clear	Clear	
pН	$7.10 \pm 0.20$ at 25 °C	7.16	
Gel Strength	Comparable with 1.5% agar gel	Complies	
Solubility	Soluble in de-ionized water upon boiling	Complies	

The media is hygroscopic, so it is essential to store it in a cool, dry place as indicated on the product label.

The pH value recorded during the analysis for this batch falls within the specified range. The pH value provided in this Certificate of Analysis (CoA) is for reference only. It's important to note that the pH value may fluctuate within the acceptable range due to Product aging, the specific probe used for measurement, and variations in pH readings among different or even the same brand of pH meters at different locations.

## Microbiological Performance Growth Promotion Test (GPT)

MacConkey Agar (MCA), specifically formulated without Crystal Violet and containing 0.15% Bile Salts, was utilized as the testing medium. This medium was prepared in line with the product specifications and was subsequently tested against the below parameters.

QC Organisms	Inoculum	Colony Appearance	Growth	Recovery %	Results
Escherichia coli ATCC 25922	≤100CFU	Pink to red with Bile precipitation	Luxuriant	≥50%	Complies
Salmonella typhimurium ATCC 14028	≤100CFU	Colourless	Luxuriant	≥50%	Complies
Salmonella enteritidis ATCC 13076	≤100CFU	Colourless	Luxuriant	≥50%	Complies
Shigella flexneri ATCC 12022	≤100CFU	Colourless	Fair to Good	30% to 40%	Complies
Staphylococcus aureus ATCC 13048	103	N/A	Inhibited	N/A	Complies
Klebsiella aerogenes ATCC 27853	≤100CFU	Pink to red	Luxuriant	≥50%	Complies

ATCC is a registered trademark for the American Type Culture Collection. N/A: Not Applicable

**Dehydration Culture Medium** 

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**Batch/Lot Passing Criteria:** A satisfactory result is defined as a recovery of positive strains equal to or greater than 70% of the control medium.

ATCC is a registered trademark of the American Type Culture Collection. The incubation temperature for the study was maintained between 35°C and 37°C, with an incubation duration of 18 to 48 hours.

#### **RESULTS & CONCLUSION**

At the time of analysis, lot number 1660125/01 for MacConkey Agar (MCA) Without Crystal Violet, and with 0.15% Bile Salts, has been assessed against the established parameters and has yielded satisfactory results. These results were derived from our analysis utilizing the designated quality control strains, and they adhered to the established testing parameters and expectations. However, we recommend that all clients verify these results before utilizing a new lot, as this practice may enhance confidence in the findings and contribute to the overall improvement of their quality assurance processes

#### **DISCLAIMER**

The information presented in this certificate is deemed reliable and accurate. However, it is important to note that both the information and the products are approved solely for their intended use as specified in the product specifications. No warranty is provided for the product when utilized in any manner that diverges from the current product specifications.

**Authorized Signatory** 

ASHUTOSH MOHAN

Certified Six Sigma Black Belt, QMS Auditor