

Plate Count skim Milk Agar - PCSM (i23406)

For determining the microbial count in milk and dairy products.

Industry: Dairy Products

Principles & Uses

The Skim Milk Plate Count Agar, aligning with international standards, creates an optimal culture medium for the examination of milk and dairy products. This medium lacks inhibitors or indicators, fostering a rich nutrient medium, and the skim milk introduces conditions suitable for microorganisms thriving in milk. The peptone from casein serves as a nitrogen source rich in free amino acids, while yeast extract contributes B-complex vitamins. Glucose acts as an energy source, and agar solidifies the medium. With its nutrient richness and absence of inhibitory substances, this medium supports the cultivation and enumeration of a broad spectrum of microorganisms. Its compliance with established standards makes it a reliable choice for microbiological examinations in the dairy industry.

Composition (gr/L)

Peptone from Casein 5 g, Yeast Extract 2.5 g, Skim Milk Powder (no inhibitor) 1 g, Glucose 1 g, Agar 10.5 g.
Final pH at 25°C 7.0 ± 0.2

Preparation from dehydrated Powder

Suspend 20 g of the powder in 1 litre in cold water and allow to stand for about 15 minutes. Transfer flask to a cold-water bath and heat gently, with frequent shaking, until completely dissolved. Autoclave at 121°C for 15 min.

Quality Control

Dehydrated Appearance: Light beige, free-flowing, homogeneous.

Prepared Appearance: Light amber, slightly opalescent.

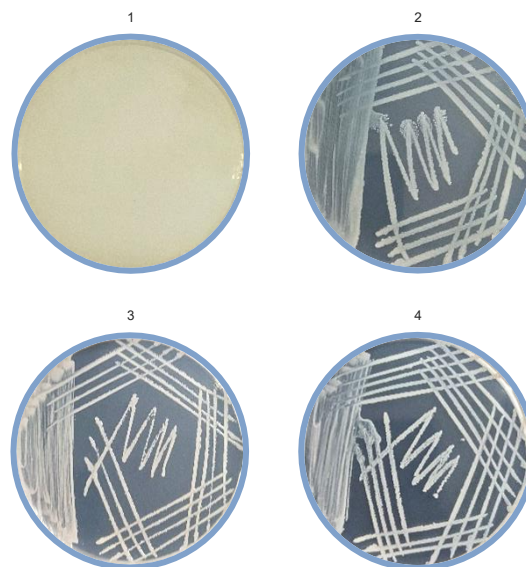
Reaction of 2.0% Solution at 25°C: pH 7.0 ± 0.2

Cultural Response

Prepare the medium depend on the purpose for which the medium is used and the methods which are utilized. Inoculate and incubate at 35 ± 2°C for 18 - 48 hours.

Organism (ATCC*)	Inoculum CFU	Recovery
<i>Escherichia coli</i> (25922)	10 ³ -10 ⁵	Good
<i>Staphylococcus aureus</i> (25923)	10 ³ -10 ⁵	Good
<i>Bacillus cereus</i> (11778)	10 ³ -10 ⁵	Good
<i>Candida albicans</i> (10231)	10 ³ -10 ⁵	Good

*ATCC is a registered trade mark of the American Type Culture Collection.



1: Prepared Culture Media. 2: *Escherichia coli*. 3: *Candida albicans*. 4: *Staphylococcus aureus*.

The background of cultured plates has been darkened for better visibility of colonies.

Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.