

Plate Count Skim Milk Agar

Catalogue No.: AS-1329 | Version: 1.0 | Issue Date: 2025-01-01

Product Specifications

Product Name	Plate Count Skim Milk Agar
Catalogue Number	AS-1329
Format	Dehydrated granular medium
Appearance	Cream to light beige homogeneous powder
Final pH (25 °C)	7.0 ± 0.2
Gel Strength	Firm, transparent gel after autoclaving
Sterility	Sterile upon preparation per protocol
Application	Dairy microbiology — TVC/TAC enumeration

Composition (per litre)

Ingredient	g/L	Function
Tryptone (Pancreatic Digest of Casein)	5.0	Nitrogen source
Yeast Extract	2.5	Growth factors, vitamins
Glucose (Dextrose)	1.0	Fermentable carbon source
Skimmed Milk Powder (heat-treated)	100.0	Casein, lactose, vitamins, growth stimulants
Agar	12.0–15.0	Solidifying agent

Preparation Instructions

- Suspend 5.0 g tryptone + 2.5 g yeast extract + 1.0 g glucose + 100.0 g skimmed milk powder + 12–15 g agar in 1 litre of purified (Type 1 or Type 2) water.
- Mix thoroughly. Note: Milk powder dissolves slowly — allow sufficient time with agitation.
- Heat with frequent agitation and bring to a boil for 1–2 minutes until completely dissolved.
- Autoclave at 121 °C for 15 minutes. Do not over-autoclave; excessive heat degrades milk proteins.

5. Cool to 45–50 °C in a water bath before dispensing.
6. Pour 20–25 mL per sterile 90 mm Petri dish on a level surface.
7. Allow to solidify. Store prepared plates at 2–8 °C in sealed bags for up to 4 weeks.

Incubation Conditions

Standard (ISO 4833-1)	30 ± 1 °C for 72 ± 3 hours (pour-plate technique)
Alternative (some national methods)	35 ± 1 °C for 48 hours
Technique	Pour-plate (as specified in ISO 4833-1:2013)

Quality Control

Test Organism	ATCC / NCTC	Expected Result
<i>Escherichia coli</i>	ATCC 25922	Good growth; cream colonies
<i>Staphylococcus aureus</i>	ATCC 25923	Good growth; golden colonies
<i>Lactobacillus acidophilus</i>	ATCC 4356	Good growth; small white colonies

References

- ISO 4833-1:2013 — Microbiology of the food chain: Horizontal method for enumeration of microorganisms — pour plate technique, 30 °C
- IDF Standard 100B:1991 / FIL/IDF — Milk and milk products: Enumeration of microorganisms

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